

Preliminary Draft

WSDOT Statewide Municipal Stormwater
NPDES and State Waste Discharge General
Permit

December 19, 2005

WSDOT Comments

(vers. 021706)

Permit No. _____
Coverage Date _____

Issuance Date:
Effective Date:
Expiration Date:

**National Pollutant Discharge Elimination System and
State Waste Discharge General Permit
for Discharges from Washington State Department of
Transportation Municipal Separate Storm Sewers**

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
OLYMPIA, WASHINGTON 98504-7600

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.

Until this permit expires, is modified, or revoked, WSDOT that has properly obtained coverage under this permit is authorized to discharge to waters of the state in accordance with the special and general conditions which follow.

Dave Peeler, Manager
Water Quality Program
Department of Ecology

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¹ Terms that are included in the definitions and acronyms section are indicated in italics the first time they are used in the text of the permit.

Note to readers:

This preliminary draft contains some sections and appendices similar to the preliminary drafts of the Phase I and II municipal stormwater permits. Sections S2, S4 and S7 are currently under review and revision by Ecology staff.

SPECIAL CONDITIONS

S1. PERMITTEE AND PERMIT COVERAGE

A. PERMITTEE

Stormwater discharges from state highways and related facilities, owned and operated by the Washington Department of Transportation (WSDOT), are regulated under the *Clean Water Act (CWA)* as *municipal separate storm sewer systems (MS4s)*. This *National Pollutant Discharge Elimination System (NPDES)* municipal stormwater and state waste discharge permit replaces and supercedes WSDOT's coverage under the Phase I municipal stormwater permits.

B. PERMIT COVERAGE

This permit is a *general permit* for state transportation facilities in Phase I and Phase II areas. This permit covers stormwater discharges from state highways, maintenance facilities, ferry terminals, rest areas, and park and ride lots when the discharges are conveyed through a *municipal separate storm sewer (MS3)* owned or operated by WSDOT.

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In 2003, WSDOT submitted a permit application to include coverage for their highways and facilities across the entire state. On August 8, 2005, WSDOT submitted a request to amend its permit application to limit geographic coverage to coincide only with the Phase I and II boundaries. Additionally, WSDOT revised its January 2005 Draft Stormwater Management Plan (SWMP) in December 2005 to limit program coverage to Phase I & II areas only. Appendix 3 of this permit contains the revised draft SWMP.

Ecology has not made a final decision regarding the permit's geographic coverage. This issue will be discussed and finalized as part of the permit development and issuance process.

Map of Phase I & II urban areas: <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/maps/state-msw.pdf>

WSDOT's March 2003 NPDES permit application voluntarily seeking statewide coverage was based on the premise that the WSDOT permit would be developed in partnership with Ecology and that the permit would be drafted in tandem with a SWMP to support effective stormwater management consistent with the special requirements of transportation facilities. Learning that Ecology felt it did not have the ability to adequately tailor WSDOT's permit to support the concept of statewide coverage spawned the need for WSDOT to reevaluate the merits of extending permit scope of coverage beyond what is federally required. Upon re-examination, it became evident that change in events considerably weakened any business advantage in obtaining statewide coverage as well as amplified the legal risks associated with the permit's expanded geographic scope. Thus, after considerable deliberation, WSDOT amended its permit application to narrow its permit coverage.

In addition, the emergence of a separate WSDOT NPDES municipal stormwater permit will create situations where the coverage areas of the WSDOT permit and the Phase I and II NPDES municipal stormwater general permits geographically overlap. To avoid the possibility of generating confusion over which permit requirements govern in terms of WSDOT's facilities, WSDOT feels that it is imperative to craft permit language in such a way that is clear that the Phase I & II NPDES MS4 general permits do not govern within WSDOT right-of-way and maintenance yards. While we anticipate the language in the WSDOT and the other municipal general permit requirements will be identical or similar in many respects, properly crafted permit language would avoid creating the potential situation where municipal ordinances/codes promulgated to meet their MS4 permit obligations would create duplicative (or worse, conflicting) regulatory requirements with WSDOT's MS4 permit.

S2. AUTHORIZED DISCHARGES

- A. This permit authorizes the discharge of stormwater to surface waters and to ground waters of the state from municipal separate storm sewers owned or operated by WSDOT as follows:

1. ~~New and existing~~ stormwater discharges from existing conveyances.
2. Discharges from new stormwater conveyances (see glossary for definition) constructed after the issuance date of this permit that have received all applicable state and local permits and use authorizations, including compliance with Ch. 43.21C RCW (the State Environmental Policy Act), and that are in compliance with Special Condition S4. COMPLIANCE WITH STANDARDS, of this permit.

Making the distinction between existing and new discharges from regulated MS4s is not appropriate, as the CWA requires the regulation of municipal separate storm sewer systems-as a whole-not their separate discharges. Focusing on the system is consistent with the complexity and programmatic nature of municipal stormwater management is more cost effective than focusing on discrete discharges.

3. Stormwater discharges to ground waters of the state are covered under this permit, except that stormwater that are designed to discharge through facilities regulated

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under the Underground Injection Control (UIC) program, Chapter 173-218 WAC, are not covered under this permit.

4. Covered discharges to ground waters, not subject to regulation under the federal Clean Water Act, are covered in this permit only under state authorities, Chapter 90.48 RCW, the Water Pollution Control Act.

B. This permit authorizes discharges of stormwater associated with industrial and construction activity, process wastewater, and non-stormwater discharges from municipal separate storm sewers owned or operated by WSDOT to waters of the state, only under the following conditions:

1. Non-stormwater discharges and process wastewater into WSDOT's MS3 must be authorized by another NPDES permit or WSDOT must be in compliance with Special Condition S5.B.2 Illicit Connections and Illicit Discharges Detection and Elimination; or
2. Stormwater associated with construction or industrial activity, as defined by 40CFR 122.26, discharging into a Permittee's MS3 must be authorized by a separate individual or general NPDES permit, or WSDOT must be in compliance with Special Condition S5.B.2 Illicit Connections and Illicit Discharges Detection and Elimination.

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C. This permit authorizes discharges from fire fighting activities, except training exercises.

D. This permit does not authorize illicit discharges except when WSDOT complies with Special Condition S5.B.2. Illicit Connections and Illicit Discharges Detection and Elimination, nor does it relieve entities responsible for illicit discharges, including spills of oil or hazardous substances, from responsibilities and liabilities under state and federal laws and regulations pertaining to those discharges.

Deleted: , unless the discharges from fire fighting activities are identified as significant sources of pollutants to waters of the State

Deleted: as allowed in

S3. RESPONSIBILITIES OF PERMITTEE

A. WSDOT is responsible for compliance with all of the conditions of this permit for the municipal separate storm sewers it owns or operates.

B. WSDOT may rely on another entity to meet one or more of the requirements of this permit, if the other entity implements the requirement and agrees to implement the requirement on the WSDOT's behalf. If WSDOT relies on another entity to satisfy one or more of their permit requirements, it remains responsible for permit compliance if the other entity fails to satisfy the permit requirement(s). Where permit responsibilities are shared they must be documented as follows:

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1. WSDOT shall submit a statement to the *Department of Ecology (Ecology)* that describes the permit requirements that will be implemented by other entities. The

statement must be signed by all participating entities. There is no deadline for submitting such a statement provided that this does not alter implementation deadlines. WSDOT may amend their statements during the term of the permit to establish, terminate, or amend shared responsibility arrangements, and submit the amended statements to Ecology.

- C. Unless otherwise noted, all appendices to this permit are incorporated by this reference as if set forth fully within this permit.

S4. COMPLIANCE WITH STANDARDS

[Making the distinction between existing and new discharges from regulated MS4s is not appropriate, as the CWA requires the regulation of municipal separate storm sewer systems-as a whole-not their separate discharges. Focusing on the system is consistent with the complexity and programmatic nature of municipal stormwater management is more cost effective than focusing on discrete discharges.]

- A. In order to meet the goals of the Clean Water Act and address compliance with applicable surface water, ground water and sediment management standards, WSDOT must use controls that reduce the discharge of pollutants from their MS4 to the Maximum Extent Practicable (MEP). Compliance with the terms of this permit will fully satisfy this requirement and constitutes compliance with all existing statutory and regulatory requirements for municipal stormwater discharges.

Compliance with Special Condition S5.B.5 (Controlling Runoff from New Development, Redevelopment and Construction Sites) satisfies the state requirement under Chapter 90.48 RCW to apply all known, available, and reasonable methods of prevention, control and treatment (AKART) prior to discharge. [Per the revised text above, the text that follows below would be an unnecessary redundancy with Special Condition S5.B.5.]

[Unnecessary redundancy with General condition G14.]

S5. STORMWATER MANAGEMENT PROGRAM (SWMP)

A. General Requirements

- [The manner in which the preliminary permit is crafted is inconsistent with WSDOT's understanding with Ecology that the SWMP would have already been developed and included, by reference, in permit.] [Reference to SWMP implementation is redundant with language in #3 below.] [WSDOT does not have police powers.] [The following language is unnecessary since it was WSDOT's understanding that Ecology would have made this

Deleted: <#>This permit does not authorize a violation of Washington State surface water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC), sediment management standards (chapter 173-204 WAC), or human health-based criteria in the national Toxics Rule (Federal Register, Vol. 57, NO. 246, Dec. 22, 1992, pages 60848-60923).¶
Existing Stormwater Discharges.

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Deleted: for all existing stormwater discharges

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Deleted: To meet the requirement to reduce the discharge of pollutants to the MEP, WSDOT shall comply with the requirements of this permit.

Deleted: New Stormwater Discharges. All new stormwater discharges must comply with Washington surface water, ground water and sediment management standards. New stormwater discharges by WSDOT shall not cause or contribute to a violation of applicable standards. New stormwater discharges include *new stormwater sources* and *new stormwater outfalls*, including all sources contributing to the new stormwater outfall. Compliance with water quality standards shall be determined as follows: ¶
1. If the new stormwater discharge is controlled in accordance with the technical standards in Appendices 1 and 2 and in compliance with the terms of this permit, then the discharge is in compliance unless *site-specific information* as in 2, below, indicates otherwise. From the effective date of this permit until the date WSDOT adopts and applies the technical standards in this permit, (including, at a minimum, ... [1]

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Deleted: Ecology may modify or revoke and reissue this general permit, in accordance with General Condition ... [2]

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Deleted: WSDOT shall develop,

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Deleted: and refine

Deleted: a Stormwater Management Program (SWMP)

determination regarding the adequacy of the SWMP prior to issuance of the permit. Should the SWMP fall short of Ecology's expectation, Ecology could explicitly include those as additional permit requirement. Integrating development of the SWMP into the permit development process would provide the added benefit of enhancing WSDOT's ability to deploy the SWMP sooner.]

2. The SWMP describes the Program management framework, legal authority, illicit discharge elimination, intergovernmental coordination, construction stormwater pollution prevention, requirements for new/redevelopment projects, stormwater BMP retrofit program, maintenance standards and practices, vegetation management, monitoring and research programs, education and outreach programs, program assessment, and annual reporting.

3. This NPDES permit directs WSDOT to implement its SWMP (i.e., Appendix 3), which Ecology has reviewed and certified that it satisfies the requirements of this permit. All components and measurable goals of the SWMP are enforceable as conditions of this permit. [The remaining text that follows would only be necessary if in Ecology's review of the WSDOT SWMP, the determination was made that aspects of the SWMP were insufficient in meeting Ecology's expectations.] WSDOT shall revise its draft 2005 SWMP to comply with the provisions of this NPDES permit and address concerns about the scope, detail of proposed actions, and time frame for implementation. This permit also directs WSDOT to implement its draft (dated xx) SWMP until it is revised to comply fully with the conditions of this permit. This permit is the governing document in any discrepancy between WSDOT's draft 2005 SWMP and this NPDES permit.

4. If necessary, WSDOT shall prepare written documentation of its revised SWMP and submit it to Ecology in written and electronic formats with or before the first year annual report, in accordance with the requirements in S8 Reporting Requirements. The SWMP documentation shall include a description of each of the program components identified as deficient by Ecology. [Multiple redundancies regarding cost tracking appear in this permit (i.e., S5. B.11 and S8. B.2.). See related comments under S8. B.2.]

B. Program Requirements

If necessary, WSDOT shall revise its SWMP to include, at a minimum, the components and requirements identified as deficient by Ecology. [Redundant language]

1. Legal Authority [Section 2.3.4 of the draft SWMP describes WSDOT's Legal Authority for the items below.]

Deleted: designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) and to protect water quality and beneficial uses of water of the state from impacts which cause or contribute to loss or impairment, and to satisfy the appropriate requirements of the Clean Water Act.

Deleted: A draft 2005 SWMP, submitted by WSDOT, represents an initial plan for management of stormwater discharges during the term of this permit (Appendix 3).

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Deleted: included in S5.B, any additional actions implemented by WSDOT pursuant to S5.B, and any additional actions necessary to meet the requirements of applicable TMDLs

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5. WSDOT shall track the cost of development and implementation of the SWMP required by this section. This information shall be included in the annual report.

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Deleted: All components and measurable goals are mandatory and must be implemented by WSDOT. The requirements of the stormwater management program shall apply to municipal separate storm sewers and areas served by municipal separate storm sewers owned or operated by WSDOT.

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- 1 a. WSDOT must demonstrate that it can operate pursuant to legal authority
 2 established by statute, permit, contracts, orders, interagency agreements, or
 3 similar means, within the limits of state and federal law, which authorizes or
 4 enables WSDOT to:

Deleted: it to control discharges to and from municipal separate storm sewers owned or operated by

- 5 i. Control the contribution of pollutants to municipal separate storm sewers
 6 owned or operated by WSDOT from stormwater discharges associated with
 7 industrial activity and control the quality of stormwater discharged from
 8 sites of industrial activity;
 9 ii. Prohibit illicit discharges to the municipal separate storm sewer owned or
 10 operated by WSDOT;
 11 iii. Control the discharge of spills, and the dumping or disposal of materials
 12 other than stormwater into the municipal separate storm sewers owned or
 13 operated by WSDOT;
 14 iv. Control, through utility permits and/or franchises, the contribution of
 15 pollutants from one portion of the municipal separate storm sewer system to
 16 another portion of the municipal separate storm sewer system;
 17 v. Require compliance with conditions in permits, contracts, or orders; and,
 18 vi. Within the limitations of state law and federal law, carry out all inspection,
 19 surveillance, and monitoring procedures necessary to determine compliance
 20 and non-compliance with permit conditions, including the prohibition on
 21 illicit discharges to the municipal separate storm sewer.

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 b. This legal authority, which may be a combination of statute, permit, contracts, orders, interagency agreements, or similar means, shall authorize or enable WSDOT, at minimum,

Deleted: interagency agreements

22 c. Minimum Performance Measures:

- 23 i. WSDOT's SWMP shall describe its legal authority to comply with
 24 conditions in this permit. [Section 2.3.4 of the draft SWMP was crafted in
 25 consultation with the Attorney General's Office. WSDOT would like to get Ecology
 26 feedback as to its adequacy in meeting this permit condition.]

Deleted: submit, no later than one year from the effective date of the permit, a statement by its legal counsel that

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28 2. Illicit Connections and Illicit Discharges Detection and Elimination [Section 2.3.3 of
 29 the draft SWMP describes WSDOT's Illicit Discharge Detection and Elimination program.
 30 WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed
 31 approach in the draft SWMP for meeting these requirements.]

- 32 a. The SWMP shall include an ongoing program to detect and report to the
 33 appropriate agency, illicit connections and illicit discharges, including spills, into
 34 the municipal separate storm sewers owned or operated by WSDOT. [WSDOT
 35 does not have the legal authority to initiate regulatory enforcement actions. Section
 36 2.3.3 of the draft SWMP addresses WSDOT's Illicit Discharge Detection and
 37 Elimination program, and the text that follows would only be necessary if in Ecology's

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review of the WSDOT SWMP, the determination was made that aspects of the SWMP were insufficient in meeting Ecology's expectations.] The program shall include:

~~WSDOT does not have the legal authority to initiate regulatory enforcement actions.]~~

WSDOT shall incorporate appropriate control measures ~~if~~ non-stormwater discharges listed in Appendix 3, (dated xx) WSDOT Stormwater Management Program section 2.3.3 are identified by WSDOT as a significant contributor of pollutants to MS3 owned or operated by WSDOT. ~~WSDOT cannot "ensure" that non-stormwater discharges are not sources of pollutants to waters of the state. Furthermore, some of these discharges (e.g., rising ground waters, springs, flows from riparian habitats and wetland) are beyond WSDOT's control or a regulator's regulatory authority.]~~

- ii. Detecting and reporting illicit connections to municipal separate storm sewers owned or operated by WSDOT. ~~WSDOT does not have the legal authority to initiate regulatory enforcement actions.]~~
- iii. On-going identification of illicit discharges into the municipal separate storm sewer system through outfall inventory inspections, field observations, and complaint response.
- iv. Preventing, responding to, and having the responsible party eliminate and clean up illicit discharges into the municipal separate storm sewers owned or operated by WSDOT. ~~Illicit discharge remediation should be the responsibility of the discharger, not WSDOT.]~~

Deleted: i. Effectively prohibiting all types of illicit discharges to the municipal separate storm sewers owned or operated by WSDOT other than those authorized under a separate NPDES permit.

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Deleted: in the stormwater management program to ensure the

Deleted: not sources of pollutants to waters of the state

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b. Minimum Performance Measures:

- i. No later than the effective date of this permit, WSDOT must continue implementing an on-going program as described in its Ecology-approved SWMP to prevent, detect, identify and respond to illicit connections and illicit discharges within the limits of state and federal law. The program shall include procedures for reporting, and correcting or removing illicit connections, spills and other illicit discharges when they are suspected or identified. ~~Redundant language with S5 1.b.iv.]~~ WSDOT shall identify illicit connections and illicit discharges through field observation, inspections, complaints/reports, construction inspections, maintenance inspections, source control inspections, and/or monitoring information, as appropriate.
- ii. No later than 24 months after the effective date of this permit, WSDOT shall provide appropriate training for field staff determined by WSDOT to be responsible for identification, investigation, termination, cleanup, and reporting illicit discharges, including spills, improper disposal and illicit connections. Follow-up training shall be conducted as needed to address changes in procedures, techniques, or requirements. ~~Section 8.1.5 of the~~

Deleted: adopting and performing

Deleted: The program shall also include procedures for controlling pollutants entering the MS4 from an interconnected, adjoining MS4.

Deleted: screening

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Deleted: who are

Deleted: Training shall be completed no later than 12 months after the effective date of this permit

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- 1 draft SWMP describes employee, consultant, and contractor training and
2 education. WSDOT would like to get Ecology's feedback as to the adequacy of
3 WSDOT's proposed approach in the draft SWMP for meeting this requirement.
- 4 iii. No later than 24 months after the effective date of this permit, all
5 appropriate field staff as identified by WSDOT, which as part of their
6 normal job responsibilities might come into contact with, or otherwise
7 observe an illicit discharge or illicit connection to the storm sewer system,
8 shall be trained on the identification of an illicit discharge/connection and
9 on the proper procedures for reporting the illicit discharge/connection.
10 Follow-up training shall be conducted as needed to address changes in
11 procedures, techniques, or requirements. [Section 8.1.5 of the draft SWMP
12 describes employee, consultant, and contractor training and education. WSDOT
13 would like to get Ecology's feedback as to the adequacy of WSDOT's proposed
14 approach in the draft SWMP for meeting this requirement.]
- 15 Deleted: A
16 Deleted: municipal
- 17 Deleted: Initial training shall be
18 completed no later than two years from
19 the effective date of this permit. WSDOT
20 Deleted: refresher training on an
21 annual basis thereafter
- 22 iv. No later than 12 months after the effective date of this permit, WSDOT
23 shall initiate the program described in its SWMP to develop and maintain
24 a listing of all connections to the municipal separate storm sewer
25 authorized or allowed by WSDOT. [As explained in Section 2.3.4 of the draft
26 SWMP, WSDOT requires a utility permit and/or franchise for all stormwater
27 drainage or utility connections from private and public property onto state
28 highway right-of-way. WSDOT would like to get Ecology's feedback as to the
29 adequacy of WSDOT's proposed approach in the SWMP for meeting this
30 requirement.]
- 31 Deleted: a
- 32 Deleted:
- 33 v. WSDOT shall continue to provide a publicly listed water quality citizen
34 complaints/reports telephone number. This program shall be in place no
35 later than the effective date of this permit. Complaints shall be responded
36 to in accordance with S5.B.2.b.vi. below.
- 37 Deleted: and vii
- 38 vi. WSDOT shall conduct an ongoing program to identify illicit connections
39 and discharges.
40 [This program is largely geared towards municipalities and not state
41 transportation departments. Using the methods described in the WSDOT
42 SWMP that have been approved by Ecology.
WSDOT no longer conducts systematic screening for illicit connections having
discovered through its earlier efforts that illicit connections to WSDOT owned and
operated MS3 were rare. Thus, largely due to the limited access nature of
WSDOT's facilities, illicit discharges to WSDOT's MS4 do not pose the same
types of problems as those experienced by municipalities. WSDOT's existing
illicit discharge detection program via field observation by maintenance,
construction, and stormwater outfall inventory crews has provided a cost-
effective in uncovering rarely encountered illicit connections and discharges.
WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's
proposed approach in the draft SWMP for meeting this requirement.]
- Deleted: WSDOT shall conduct on-
going screening for illicit connections,
including indicator monitoring, and
tracking discharges to the source.
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Deleted: vii. WSDOT shall conduct
screening for illicit discharges using one
or more of the methods listed below:¶
(1) The field screening method in 40
CFR 122.26(d)(1)(iv).¶
(2) Illicit Discharge Detection and
Elimination: A Guidance Manual for
Program Development and Technical
Assessments, Center for Watershed
Protection, October 2004.
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(3)
Deleted: Other alternative

viii. Response to Illicit Connections

(1) Investigation: Upon discovery or upon receiving a report of a suspected illicit connection, WSDOT shall initiate an investigation within 21 days to determine the source of the connection, the nature and volume of discharge through the connection and the responsible party for the connection.

(2) Termination: Upon confirmation of the illicit nature of a storm drain connection, WSDOT shall pursue termination of the connection within 180 days, seeking enforcement by the local jurisdiction or Ecology, as needed. [WSDOT does not have the legal authority to undertake regulatory enforcement actions.]

ix. WSDOT, no later than 12 months after the effective date for this permit, shall implement procedures described in its SWMP to investigate, respond to and, if deemed appropriate, clean up spills and improper disposal into municipal separate storm sewers owned or operated by WSDOT. These procedures shall require WSDOT to investigate, within 7 days on average [This 7-day timeframe can be awkward given the 21-day timeframe requiring investigation of illicit connections in viii.(1) above], any complaints/reports or monitoring information that indicates a potential illicit discharge, including a spill or illegal dumping. WSDOT shall also investigate as soon as possible, those problems/violations judged by WSDOT to be urgent or severe, or an emergency.

[This requirement is unnecessary given, especially given, as explained above, that WSDOT has found that it was not an effective use of public resource to conduct systematic screening for illicit connections which are an extremely rare occurrence and that WSDOT does not have the legal authority to undertake regulatory enforcement actions. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting the requirements above.]

3. Coordination

a. The SWMP shall include coordination mechanisms between WSDOT and other entities covered under a municipal stormwater NPDES permit to encourage coordinated stormwater-related policies, programs, and projects. [Section 2.2 of the draft SWMP describes the intergovernmental coordination mechanisms between WSDOT and other entities, including those covered under a MS4 NPDES permit.] The SWMP shall also include coordination mechanisms and procedures among departments within WSDOT to ensure compliance with the terms of this permit. [Sections 2.1 and 7.2 of the draft SWMP describes internal coordination

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Deleted: x. WSDOT shall track and maintain records of the illicit discharge detection and elimination program, including documentation of inspections, complaint/spill response and other enforcement records.

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mechanisms within WSDOT. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.

b. Minimum Performance Measures:

i. No later than 12 months after the effective date of this permit, establish, in writing, and begin implementation of intragovernmental (internal) coordination procedures described in the WSDOT SWMP to facilitate compliance with the terms of this permit. Sections 2.1 and 7.2 of WSDOT's draft SWMP describes the internal coordination procedures. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP.

Deleted: ensure

ii. No later than 12 months after the effective date of this permit, establish, in writing, and begin implementation of intergovernmental coordination procedures described in the WSDOT SWMP. Section 2.2 of WSDOT's draft SWMP describes the intergovernmental coordination. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP.

Deleted: on stormwater management, including:

[This is redundant with Special Condition 5 B.1. & 2.]

Deleted: Coordination mechanisms clarifying roles and responsibilities for the control of pollutants between physically interconnected MS3s and those of any other entity covered by a municipal stormwater NPDES permit

WSDOT does not have the legal authority to regulate land use via plans or issue regulations. Furthermore, to avoid the possibility of generating confusion over which permit requirements govern in terms of WSDOT's facilities, WSDOT feels that it is imperative to craft permit language in such a way that is clear that the Phase I & II NPDES MS4 general permits do not govern within WSDOT right-of-way and maintenance yards (see comments under Special Condition S1.B.)

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Deleted: Coordinating activities for shared waterbodies among NPDES municipal permit entities, to avoid conflicting plans policies and regulations.

4. Revising and Updating SWMP

WSDOT's (dated xx) SWMP plan has been developed and finalized as a component of this permit. Major revisions to the SWMP must be done in conjunction with a permit modification or reissuance pursuant to Chapter 173-226 WAC. Further development of this is warranted to facilitate adaptive management of WSDOT's SWMP over the permit cycle based to advancements in stormwater management as well as lessons learned and reported in the annual reports without always triggering a full-blown permit reissuance process. Section 2.4 of the draft SWMP describes WSDOT's proposal for SWMP revisions, including criteria for determining what constitutes a major change. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP.

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5. Controlling Runoff from New Development, Redevelopment and Construction Sites

a. Highway Runoff Manual

This permit directs WSDOT to implement an Ecology-approved Highway Runoff Manual (HRM) (or an Ecology-approved functionally equivalent manual) as a part of WSDOT's SWMP to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. Public review of the HRM will occur as part of the WSDOT MS4 permit development process. The Ecology-approved HRM shall provide an equivalent or greater level of stormwater management (i.e., to the *Stormwater Management Manual for Western Washington* and *Stormwater Management Manual for Eastern Washington* as applicable. [WSDOT appreciates receiving Ecology's feedback as to the adequacy of WSDOT's HRM in meeting this requirement. As our agencies are aware, professional differences of opinion in several areas remain (see comments for Appendices 1 & 2 for details of the significant remaining differences). WSDOT wishes to collaboratively engage Ecology and other effected stakeholder in seeking resolution to these differences. The text that follows, as well as Appendices 1 and 2, are redundant with the permit condition above requiring WSDOT to implement its HRM, which shall provide an equal or greater level of protection to the Ecology stormwater management manuals.]

Deleted: The SWMP shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities.

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- i. WSDOT's HRM must include the minimum requirements, thresholds, variance criteria [It was WSDOT's understanding that it was not in the position to grant itself variances. Are we mistaken?] and definitions in Appendices 1 and 2 or determined by Ecology to be functionally equivalent to Appendices 1 and 2. More stringent requirements may apply as described in HRM Sections 1-1.5 and 3-3.2. Such requirements and thresholds must provide functionally equivalent levels of pollutant control as compared to Appendices 1 and 2. [HRM Sections 1-1.5 and 3-3.2 outlines where more stringent local stormwater management requirements may apply base on Federal and State law.]
 - ii. WSDOT's new development, redevelopment and construction sites must apply a site planning process and BMP selection and design criteria in the HRM (or an Ecology-approved equivalent manual) that, when used to implement the minimum requirements on sites, will achieve the goals of these BMPs to protect water quality, by reducing the discharge of pollutants to the maximum extent practicable, and satisfy the state requirement under chapter 90.48 RCW to apply all known, available, and reasonable methods of prevention, control and treatment (AKART) prior to discharge. WSDOT must document how the criteria and requirements will meet the BMP protection goals.
- WSDOT can choose to use the site planning process, and BMP selection and design criteria in the Ecology-approved (dated xx) HRM and cite this choice as their sole documentation to meet this requirement.

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Deleted: , and/or certain requirements may be tailored to local circumstances through the application of basin plans or other similar water quality and quantity planning efforts

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- 1 iii. The program must allow non-structural preventive actions and source
2 reduction approaches such as *Low Impact Development* (LID) techniques,
3 to minimize the creation of impervious surfaces, and measures to
4 minimize the disturbance of soils and vegetation.
- 5 v. The use of “emerging technology” is allowed if WSDOT follows the
6 process outlined in Section 5-3.6.3 of the (dated xx) Highway Runoff
7 Manual WSDOT’s pending revision adds clarity regarding use of emerging
8 technology. Ecology will evaluate treatment technology proposals using
9 the latest edition of “Guidance for Evaluating Emerging Stormwater
10 Treatment Technologies.” Proposals for flow reduction BMPs require
11 field monitoring.
- 12 b. When WSDOT requires project-level review and approval (such as a 401 Water
13 Quality Certification) WSDOT may apply off-site BMPs for post-construction
14 stormwater management in accordance with S5 B (5)(c) ←reference typo below
15 and when any of the following conditions exist:
- 16 i. When on-site BMPs will not provide adequate treatment to meet water
17 quality standards or provide adequate treatment for flow control.
- 18 ii. When the new or increased discharge will cause a violation of water
19 quality standards, but on-site treatment is determined to be unreasonable
20 based on an AKART determination Is the HRM’s Engineering and Economic
21 Feasibility Assessment tool (HRM – Appendix 3A) adequate for making AKART
22 determinations?.
- 23 iii. When on-site treatment is difficult to provide, cumulative effects are of
24 concern, and the project’s discharge will not cause or contribute to a
25 violation of water quality standards.
- 26 iv. When WSDOT and Ecology conclude This seems to conflict with S5 5.a. i.
27 which seems to suggest that WSDOT has authority to grant variances to itself.
28 WSDOT seeks clarification from Ecology on this matter. that on-site flow
29 control or stormwater treatment is difficult to provide and off-site, in-kind
30 mitigation options exist that will result in compliance with water quality
31 standards.
- 32 c. WSDOT must meet the following conditions when off-site BMPs are applied,
33 however this does not apply to the use of off-site regional stormwater treatment
34 and/or control facilities:
35

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- i. The BMPs must be located so that the actual in-kind benefit is realized in the receiving water at the project site discharge. Water quality standards in the receiving water may have no bearing on whether WSDOT has met its discharge obligations since in-water conditions would also reflect the cumulative effect of all the basin's activities. iii. The off-site BMP must create a net in-kind improvement to the receiving water quality and/or quantity at the project site discharge.

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- iii. The off-site BMP must result in compliance with an Ecology-approved basin flow-control plan The term "established" is too vague or any applicable TMDL requirement appearing in Appendix 4 of this permit.

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- iv. WSDOT provides adequate engineering analysis to establishing that the off-site BMPs will meet the water quality and/or flow control requirements. Receiving water monitoring has no bearing on whether WSDOT has met its discharge obligation since in-water conditions would also reflect the cumulative effect of all the basin's activities.

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d. Minimum performance measures:

- i. No later than 12 months from the effective date of this permit, WSDOT must revise and begin implementing the Highway Runoff Manual pursuant to the requirements in S5 B(5)(a). The revised HRM shall apply to WSDOT projects with construction "ad" dates no later than two years after the permit's issuance date. Lead-times required for WSDOT project planning and design could make a short compliance schedule infeasible depending on the extent and nature of the differences between the existing HRM and related permit conditions.

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- ii. WSDOT must provide training for staff involved in controlling stormwater runoff from new development, redevelopment, and construction sites, including preliminary design, design, design review, construction site inspections, and enforcement, to carry out the provision of this program component. This includes annual training on the use of the Highway Runoff Manual, stormwater-related design and planning tools (e.g., MGSFlood), and stormwater-related planning and design. Section 8.1.5 of the draft SWMP describes WSDOT's training program in this area. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.

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6. Mapping and Documentation

- a. The SWMP shall include an ongoing program for mapping and documenting its MS4. [Sections 2.3.2, 5.3, and 6.6 of the draft SWMP describes WSDOT's proposed information management. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]

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- b. Minimum performance measures. The information and its form of retention shall include; [The level of effort required to meet the mapping and documentation requirements represents a very large undertaking for WSDOT. In the past ten years, it is estimated that WSDOT's has located and documented only 25 percent of its outfalls and their associated BMPs. Although the possibility of increasing the rate of documentation has increased with the implementation of WSDOT's Roadside Features Inventory, completing an inventory of all outfalls and structural BMPs within four years, even just in Phase I/II designated areas, would be infeasible given anticipate resource allocations.]

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- i. No later than five years from the effective date of this permit, WSDOT shall have mapped all known municipal separate storm sewer outfalls (regardless of size) and structural stormwater BMPs known to and owned or operated by the WSDOT in 60 percent of the Phase I and Phase II designated areas.
- ii. No later than five years from the effective date of this permit, WSDOT shall begin to map the attributes listed below for all storm sewer outfalls (or discharges into a MS4 owned and operated by another municipality) known to and owned or operated by WSDOT, with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems:

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- Upstream tributary conveyances [←terminology too vague] known to and owned or operated by WSDOT (piped/non-piped and nominal diameter or cross-sectional area where known); and
- Associated drainage areas [←terminology too vague. This could infer a drainage area map, or just the number of square feet in an associated drainage?].

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[WSDOT would like to understand Ecology's interest in the above attributes.]

- iii. No later than five years from the effective date of this permit WSDOT shall begin to map existing connections over eight inches to municipal separate storm sewers tributary to all storm sewer outfalls known to and owned or operated by the WSDOT with a 24-inch nominal diameter or larger, or an equivalent cross-sectional area for non-pipe systems. [WSDOT would like to understand Ecology's interest in the above attributes.]

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- iv. No later than five years from the effective date of this permit, WSDOT shall map the portion of Phase I and Phase II designated geographic areas lying within WSDOT's right-of-way that are known to be served by WSDOT's MS4 that, by design, do not discharge stormwater to surface water and do not discharge to BMPs regulated under the Underground Injection Control program.
- v. WSDOT shall make available to Ecology, upon request, all available electronic geographic data sets depicting the information required in S5.B (6). The preferred format of submission will be an electronic format with fully described mapping standards. An example description is provided at <http://www.ecy.wa.gov/services/gis/data/standards.htm>. WSDOT shall report on updated GIS data layers in each annual report. These mapping standards and digital data delivery/distribution requirements are already standard procedure within WSDOT.
- vi. Upon request, and to the extent appropriate, WSDOT shall provide its geographic information data sets depicting the information required in S5.B (6) to other entities covered under a municipal stormwater NPDES permit. WSDOT may charge to recoup the cost of providing the data and may include overhead costs to maintain the mapping data sets.
- vii. No later than five years from the effective date of this permit WSDOT shall establish and implement a process for integrating the documentation of newly constructed stormwater facilities and BMPs in the appropriate inventory database as part of the project closeout procedure.
7. Stormwater Retrofit for Existing Facilities Section 5 of WSDOT's draft SWMP describes the proposed program for stormwater retrofitting. As described in more detail below, WSDOT recognizes the this portion of the SWMP requires further refinement and would benefit from additional interagency collaborative discussions.
- a. The SWMP shall include a program for providing practicable stormwater treatment for runoff from existing impervious surfaces that do not have treatment, or for which treatment is substandard. This program shall follow an approach that ensures WSDOT does not circumvent authority to determine where to invest fiscal resources. In making retrofit decisions, WSDOT follows an approach that ensures it does not circumvent Legislative authority to determine where to invest financial resources.
- The program shall consider constructing projects such as flow control facilities, water quality treatment facilities, and retrofitting of existing stormwater facilities, on-site (infiltration and dispersion) stormwater management BMPs and site design techniques, or restoration of forest cover and riparian buffers, for

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compliance with this requirement To WSDOT's knowledge, an Ecology-approved method has not been developed to quantify the water quality treatment benefits for such restoration options. WSDOT shall not use in-stream culvert replacement projects for compliance with this requirement.

- i. Stand-alone retrofit projects address structural stormwater control for existing discharges not associated with any new or re-development project. WSDOT shall weight stormwater retrofit priorities along with its other environmental retrofit needs (e.g., fish passage improvements) in allocating its Environmental Retrofit Project allocation.

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Currently, the traffic level of a highway is the key driving factor in determining priority for retrofit (section 5.2 of Appendix 3 WSDOT's Draft SWMP). A revised prioritization scheme could improve the inventory and retrofit planning and funding processes. Comments are welcome on this aspect of retrofit and information gathering.

As explained on page 5-3 of WSDOT's SWMP, WSDOT wishes to abandon the currently data-driven approach to establishing retrofit priorities which is extremely resource intensive to employ and does not seem to hone in on the areas of greatest environmental need. WSDOT would rather employ a scheme that targets priorities based on priorities set out in basin/watershed actions plans, TMDL-triggered water clean-up plans, salmonid recovery strategies, etc. WSDOT would like to get Ecology's feedback as to this aspect of the draft SWMP for meeting this requirement.

- ii. Project-related retrofit addresses structural stormwater control for existing discharges from impervious surfaces where a significant amount of pavement is added for a new or re-development project. WSDOT shall apply the Stormwater Retrofit Guidance in section 2-4 of the Highway Runoff Manual (HRM) for project-related structural stormwater controls. Project-related retrofits are often triggered via the Western Washington forested presumption standard in Appendix I of this permit. The guidance in Section 2-4 of the HRM is consistent with WSDOT's goal to retrofit existing impervious surfaces where a significant amount of pavement is added on a project within the sideboards set by the Legislature to allow WSDOT to construct project-related retrofits if doing so does not add significant cost to the project.

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Unless the immediate pre-project land cover conditions are forested, WSDOT maintains that designing flow controls facilities to the western Washington forested presumption standard goes beyond mitigating for the project flow control-related impact. Thus, application of this standard, translates into an additional project-

Deleted: iii. WSDOT may also consider the application of the flow control standard in Appendix 1, for sizing facilities based on a historic land cover presumption, as a project-related retrofit responsibility.

trigger a flow control retrofit requirement. This was affirmed in interagency discussions that occurred during the HRM revision process as well as in an excerpt from an October 2003 Ecology-drafted white paper (*Discussion of Alternatives to the Presumption of Matching Flow Durations Produced by the Historic Watershed Condition*) that states:

"The State of Washington has a choice to make. Does it want to restrict mitigation to the immediate impacts of the project, or does it want to provide mitigation that addresses the full impact of its facilities on the watershed and its resources? The forested condition assumption seeks to provide flow control for the new and replaced impervious surface, and flow control correction for the existing land surface which is currently contributing to increased erosional forces on the channel. In WSDOT's case, it does not have a significant budget for "stand alone" retrofit projects. Therefore, major project construction provides an opportunity to make a full correction for the high flow impacts of its facilities."

The Department of Ecology's (Ecology) strategy to include such a trigger in the *Stormwater Management Manual for Western Washington (SMMWW)* is understandable given the challenge of trying to initiate retrofit activity for the vast areas currently untreated or for which treatment is substandard. This approach becomes even more germane when one considers that the January 2004 *Department of Ecology Report to the Legislature: Municipal Stormwater Permit Program* includes the preliminary decision that the Phase II municipal permits would not contain a retrofit requirement for the first permit term.

Furthermore, in the context of highway projects, the SMMWW's project-based trigger that requires matching the historic condition (a.k.a., the forested presumption) gives rise to transportation deficiencies acting as the driving force to initiate retrofits for flow control. While WSDOT concurs that it has not been successful in securing significant funding for "stand alone" stormwater retrofit projects, its aggressive construction of project-related retrofit (both for water quality treatment and flow control) make implementing this approach both duplicative and thus unnecessary. WSDOT would still be interested in exploring the alternative approached to funding stand-alone retrofits proposal it presented to Ecology in October 2004. At that time, while Ecology felt the proposal had merit, it did not feel it had the "political latitude" to pursue such an alternative approach with WSDOT. That "political latitude" to explore this alternative may now have increased given the "takings" and growth management concerns raised by the municipalities regarding application of the forested presumption standard.]

b. Minimum Performance Measures:

- i. WSDOT shall include a description of any stand-alone retrofit projects funded through its biennial I-4 Environment Retrofit Program allocation. [While WSDOT may need to pursue options for funding stand alone retrofit projects, WSDOT feels that dictating the nature of it's legislative funding requests via a permit requirement is grossly inappropriate.]

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Deleted: in a five-year capital improvement plan with the first year annual report. WSDOT shall include a request for legislative funding to address the proposed five-year CIP

- ii. The Stormwater Retrofit Guidance in section 2-4 of Highway Runoff Manual shall be applied to accomplish project-driven retrofit.

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- iii. WSDOT shall include an update of both project-related and stand-alone retrofit accomplishments in each annual report. WSDOT's proposed reporting measures for this appear in Section 5-4 of its draft SWMP. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.

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8. Operation and Maintenance

Section 6 of WSDOT's draft SWMP addresses stormwater-related operation and maintenance activities. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach for meeting this requirement.

- a. WSDOT is required to apply operational and structural source control BMPs, and, if necessary, treatment BMPs to pollution generating sources associated with existing land uses and activities within its right-of-way. Minimum performance measures include the following: As explained in Sections 6.1 and 6.2.3 of WSDOT's draft SWMP, WSDOT employs the Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines developed by the Tri-County ESA Partnership (with Ecology at the table) and approved by the National Oceanic and Atmospheric Administration (NOAA) Fisheries for compliance with ESA requirements. WSDOT would like Ecology feedback on these guidelines for meeting the permits maintenance requirements.

- i. WSDOT shall apply applicable source control BMPs identified in the 2005 Stormwater Management Manual for Western Washington, 2004 Stormwater Management Manual for Eastern Washington, or an Ecology-approved equivalent manual.

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- ii. No later than 24 months after the effective date of this permit, adopt and implement a policy requiring the application of source control BMPs for pollutant generating sources associated with state highway facilities and associated activities. The source control requirements must include applicable operational and structural source control and, if necessary, treatment BMPs that, when used on a site specific basis, will achieve the goals of protect water quality by reducing the discharge of pollutants to the maximum extent practical, and satisfy the state requirement under chapter 90.48 RCW to apply all known, available, reasonable methods of prevention, control and treatment (AKART) prior to discharge. An implementation timeframe of 24 months will coincide with the source control training requirement in S5 B.8.a.iv).

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- iii. No later than 24 months after the effective date of this permit, develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment, and maintenance storage yards, ferry terminals, rest areas, park and ride lots and material storage facilities that discharge into a MS3 owned or operated by WSDOT, that are not covered under another NPDES permit. [An implementation timeframe of 24 months will coincide with the source control training requirement in S5 B.8.a.iv]. The SWPPP is a documented plan to implement measures to identify, prevent, and control the contamination of discharges of stormwater to surface or ground water. Implementation of non-structural BMPs shall begin immediately after WSDOT develops the pollution prevention plan, and trains appropriate field staff on its use. If structural source control and treatment BMPs are determined to be necessary. WSDOT shall include a schedule for implementation in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP shall include periodic visual observation of discharges from the facility to evaluate the effectiveness of BMPs. [Section 6.2.4 of WSDOT's draft SWMP addresses SWPPPs. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach for meeting this requirement.]
- iv. No later than 24 months after the effective date of this permit, WSDOT shall provide training to facilitate proper operation of the source control program. The training shall cover the SWPPP, source control BMPs and the proper application of both. The training shall be provided to all field staff involved in operation of the source control program. Regional Road Maintenance Endangered Species Act Program training can serve as this source control training when applicable. [Section 8.1.5 of WSDOT's draft SWMP addresses employee, consultant, and contractor training. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach for meeting this requirement.] WSDOT shall document and maintain records of the training provided and the staff trained. [Section 3.1.4 in the draft SWMP describes WSDOT's proposed approach for tracking training activities. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]
- b. The SWMP shall include policies and procedures to reduce pollutants in stormwater discharges associated with the application of pesticides, herbicides, and fertilizer discharging into municipal separate storm sewers owned or operated by WSDOT. [The Washington State Department of Agriculture (WDOA) regulates these applications. Duplicative regulations can lead to confusion. WSDOT ensures that its personnel and contractors engage in such application are properly certified by WDOA.] The program shall include, at a minimum: vegetation

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management policies; technical guidelines; procedures; and standards.

Minimum performance measures include the following: Section 6.2.6 of WSDOT's SWMP describes WSDOT's approach to vegetation management. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting these requirements.

- i. No later than 12 months after the effective date of this permit, revise and implement the vegetation management program to include the following minimum requirements:

(1) WSDOT does not need to reorganize and consolidate the program in to one document as Chapter 6 of the WSDOT Maintenance Manual already serves this purpose. Chapter 6 includes references to design and construction aspects as well as all other relevant documents. WSDOT will add a section on the role of the area roadside vegetation management plans to this chapter once the plans have been developed.

Deleted: Reorganization and consolidation of the program into in one document (not including reference documents);

(2) This requirement works cross-purpose with WSDOT's current strategy for managing the use of pesticides, herbicides, and fertilizer. Rather than establishing mandatory levels of use, WSDOT's utilizes the approach of implementing BMPs and integrated vegetation management practices through the use of area roadside vegetation management (IVM) plans. This approach allows us to establish more naturally self-sustaining roadside vegetative covers that require less maintenance as well as applications of herbicides, pesticides, and fertilizers. This is a long-term approach to vegetation management cannot be driven by predetermined quotas for herbicide, pesticide, and fertilizer application. A more appropriate requirement would involve the development and implementation of area roadside vegetation management plans containing site specific IVM solutions as described in Section 6.2.6 of the draft SWMP.]

Deleted: A stated goal and specific measures to reduce the amount of pesticides, herbicides, and fertilizer used to maximum extent practicable over the five-year permit cycle;

(3) [As stated earlier, WDOA regulates such applications. Duplicative regulations can lead to confusion. As described in Section 6.2.6 of the draft SWMP, WSDOT maintains a database to comply with WDOA recordkeeping requirements for pesticides, herbicides and fungicides. WSDOT is expanding this recordkeeping system to include additional information to support the ongoing evaluation of vegetation treatments per WSDOT's Roadside Vegetation Management Program.]

Deleted: Identification, detailed account and tracking of each pesticide, herbicide, fungicide, and fertilizer used during maintenance activities by each WSDOT region;

(4) Description of application practices of each listed product including: special precautions, timing, application rates, and efficacy for targeted species. This includes plant management in wetland mitigation areas;

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Deleted: and the effects of using combinations of chemicals

(5) Criteria for the selection of pesticides, herbicides, and fertilizers that includes at a minimum, target specificity, toxicity, shorter persistence, lower migration characteristics, time of application and

1 site conditions of treatment area, including slope and permeability;
2 and

- 3 (6) Policies and procedures to reduce pollutants associated with the
4 application of pesticides, herbicides and fertilizers at non-roadway
5 sites such as maintenance facilities, ferry terminals, rest areas, park
6 and ride lots and stormwater treatment and flow control facilities.

- 7 ii. WSDOT maintains a database to comply with WDOA recordkeeping
8 requirements and is expanding this recordkeeping system to include additional
9 information to support the ongoing evaluation of vegetation treatments per
10 WSDOT's Roadside Vegetation Management Program.

Deleted: Within 12 months of the effective date of this permit complete the spraying activities link in the Computerized Maintenance Management.

- 11 c. The SWMP shall include policies and procedures to prevent or reduce
12 stormwater impacts while conducting operation and maintenance activities.
13 Minimum performance measures include the following: Section 6.1 of WSDOT's
14 draft SWMP provides a summary of the technical guidance, manuals, and standards
15 used by WSDOT's Maintenance program.

- 16 iii WSDOT shall apply only those amounts of winter chemicals and abrasives
17 needed to effectively provide for a safe road condition. WSDOT will follow
18 the winter chemicals and abrasives application practices in WSDOT's Snow
19 and Ice Plan. WSDOT shall seek Ecology's input on revisions to the Snow
20 and Ice Plan. Section 6.1 of WSDOT's draft SWMP provides a summary
21 description of this plan. WSDOT would like to get Ecology's feedback as to the
22 adequacy of WSDOT's proposed approach in the draft SWMP for meeting this
23 requirement.

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Deleted: salt, deicing chemicals and abrasives for snow and ice removal

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- 24 d. The SWMP shall include a policies and procedures to conduct maintenance on
25 all known stormwater facilities in order to prevent or reduce stormwater
26 impacts. The maintenance program shall include maintenance standards,
27 inspection schedules, maintenance schedules, tracking and recordkeeping. The
28 Program shall apply the maintenance standards contained in WSDOT's (dated
29 xx) Highway Runoff Manual. Minimum performance measures include the
30 following:

- 31 i. No later than two years after the effective date of this permit, WSDOT shall
32 begin inspecting all known permanent stormwater treatment and flow
33 control facilities (other than catch basins owned or operated by WSDOT)
34 annually, and conduct maintenance for compliance with the maintenance
35 standards. WSDOT may change the annual inspection schedule to a lesser
36 frequency as appropriate to meet the maintenance standards based on
37 inspection/maintenance records for twice the length of time of the proposed
38 inspection frequency. In the absence of inspection/maintenance records for

these facilities, WSDOT may substitute written statements, including the signature certification in *General Condition G19*, proposing a less frequent inspection schedule, not to exceed three years, based on actual inspection and maintenance experience. The facility-specific maintenance standards determine if maintenance actions are required, as identified through inspection. They are not intended to be measures of the facility's required condition at all times between inspections. Exceeding these conditions at any time between inspections and/or maintenance does not automatically constitute a violation of these standards. However, based upon inspection observations, WSDOT shall adjust the inspection and maintenance schedules to minimize the length of time that a facility is in a condition that requires a maintenance action. These standards are violated when an inspection identifies a required maintenance action related to facility function and that action is not performed in a timely manner.

Deleted: For example, WSDOT should perform maintenance within six months for typical maintenance and revegetation, and within one year for maintenance that requires capital construction of less than \$25,000.

- ii. No later than 24 months after the effective date of this permit, WSDOT shall begin implementing a program to annually inspect all known catch basins and inlets owned or operated by WSDOT. WSDOT may change the annual inspection schedule to a lesser or greater frequency as appropriate to meet the maintenance standards based on inspection/maintenance records for twice the length of time of the proposed inspection frequency. In the absence of maintenance records for catch basins, WSDOT may substitute written statements, including the signature certification in *General Condition G19*, proposing a specific less frequent inspection schedule, not to exceed three years, based on actual inspection and maintenance experience. Inspections may be conducted on a "circuit basis" whereby a sampling of catch basins and inlets within each circuit is inspected to identify maintenance needs. This approach includes the inspection of any catch basin immediately upstream of any circuit system outfall. All catch basins within a given circuit will be clean at the same time in the event the inspection indicates cleaning is needed to comply with maintenance standards.

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- iii. The disposal of decant water shall be in accordance with the requirements in Appendix 7.
- iv. WSDOT shall maintain records of inspections and maintenance and repair activities. WSDOT would like to understand Ecology's interest in reporting on maintenance and repair projects requiring capital construction of \$25,000 or more, as WSDOT sees no benefit in developing a costly system to track such information. Section 6.6 of WSDOT's draft SWMP describes WSDOT's Maintenance Accountability Program, a tool to measure and communicate the outcome of its maintenance activities.

Deleted: Maintenance and repair projects requiring capital construction of \$25,000 or more shall be included in the annual report.

v. ~~[Section 6.6 of WSDOT's draft SWMP describes WSDOT's maintenance program evaluation proposal. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]~~

Deleted: No later than 12 months after the effective date of this permit, WSDOT shall incorporate the Maintenance Productivity Enhancement Tool database and the Stormwater Facility BMP database into the Computerized Maintenance Management System (CMMS).

vi. No later than 12 months after the effective date of this permit, WSDOT shall integrate the Maintenance Office review as part of the stormwater facilities design approval process.

vii. Within ~~three~~ years of the effective date of this permit develop and implement a stormwater maintenance activity-tracking tool that is based on work completed in addition to the existing time collection/time cards database. ~~[Section 6.6 of WSDOT's draft SWMP describes WSDOT's maintenance program evaluation proposal. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]~~

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9. Education Program

a. The SWMP shall include an education program aimed at ~~reducing~~ or ~~eliminating~~ behaviors and practices that cause or contribute to adverse stormwater impacts. ~~[Section 8 of WSDOT's SWMP describes in detail the approach WSDOT feels that would be most effective to achieve this goal. A significant emphasis is on training and educating WSDOT staff, consultants, and contractors who have implementation responsibility for aspects of the SWMP. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]~~

Deleted: transportation system customers, elected officials, policy makers, WSDOT planning staff and other WSDOT employees. The goal of the education program is to

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b. Minimum Performance Measures:

~~[Many of the performance measures below seem more appropriate for municipalities.]~~

i. No later than 12 months after the effective date of this permit, WSDOT shall implement an education program that targets a ~~WSDOT staff, consultants, and contractors as well as the general public~~ to provide education and ~~training~~ on the topics listed in ~~Section 8 of its SWMP.~~ ~~[WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]~~

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Deleted: uses different types of media (brochures alone are not adequate), and

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Deleted: ii. The education program shall address the following topics and target audiences:

~~[WSDOT feels that its resources would be more effectively deployed to meet the aim of objective describe in S5 B.9a. by deploying the action as described in Section 8 of WSDOT SWMP.]~~

Deleted: (1) Provide education opportunities for all audiences about the importance of improving water quality, reducing impervious surfaces and protecting beneficial uses of waters of the state. The public should be aware of water quality impacts of automobile-related pollutants in state highway stormwater discharges.

~~[This material as well as this message is widely available. Addition effort on the part of WSDOT would be redundant. Furthermore, while the programs may have been effective in informing the general public on actions they can take~~

to improve water quality and reduce transportation-related pollutants, they remain ineffective in changing public behavior.]

[This material as well as this message is widely available. Addition effort on the part of WSDOT would be redundant. Furthermore, while the programs may have been effective in informing the general public on actions they can take to improve water quality and reduce transportation-related pollutants, they remain ineffective in changing public behavior.]

Deleted: (2) Provide information to the general public about actions individuals can take to improve water quality and reduce transportation-related pollutants in WSDOT's MS4.

(3) Provide training at least one time per year to contractors and WSDOT engineers on the sedimentation and erosion control requirements and BMP methods. [See Sections 8-1.5 and 3.1.2 of WSDOT's SWMP for a description of WSDOT's Construction Site Erosion & Sediment Control Certification Course. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]

(4) Provide information to WSDOT staff (e.g., engineers, development review staff, and transportation planners), construction contractors, and consultant on technical standards, the development of stormwater site plans and erosion control plans, and BMPs for mitigating contaminated runoff and the quantity of runoff from development sites. [See Sections 8-1.5 and 3.1.2 of WSDOT's SWMP for a description of WSDOT training programs of these topic areas. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]

Deleted: developers, development review staff, and land use planners

(5) Provide information to explain and promote the removal of illicit discharges. [See Section 8-1.5, page 8-5 of WSDOT's SWMP for a description of WSDOT's illicit discharge training program. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]

iii. WSDOT shall develop and implement a public education and outreach program designed to reach the target audiences described in WSDOT's SWMP by the expiration date of this permit. [It is problematic to design a program to reach 100 percent of a target public audience if it is broadly or vaguely defined considering the multitude of factors that come into play (e.g., languages, cultures, ages, socio-economic and educational levels, etc.). WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]

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iv. WSDOT shall track and maintain records of education and training activities. [Section 3.1.4 in the draft SWMP for a description of WSDOT's proposed approach for tracking training activities. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]

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10. Public Involvement and Participation [The manner in which the preliminary permit is crafted is inconsistent with WSDOT's understanding with Ecology that the SWMP would be developed during the permit development process and included in the permit by reference. By utilizing the SWMP as a focal point during the permit development process, stakeholders would have an opportunity to review and comment on the SWMP as the permit was being crafted. In addition, integrating development of the SWMP into the permit development process would enhance WSDOT's ability to deploy the SWMP sooner. However, Ecology's apparent shift to including all the requirements and compliance timelines in the permit, rather than working to incorporate them in the SWMP by reference, significantly diminishes the role that public involvement and participation can play in the actual development of the SWMP itself. This apparently may be an unfortunate causality of a permit development process-shift made to accommodate Ecology's staffing resource constraints.] [The SWMP contains many elements, one of which is education as describe in Section 8 of the SWMP. This requirement is redundant with S5 B. 9.]
- b. The SWMP shall provide ongoing opportunities for public involvement as appropriate in WSDOT's implementation of the various elements of its stormwater management program. [Section 8 of WSDOT's draft SWMP includes the elements of SWMP implementation that lend itself to public involvement. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach in the draft SWMP for meeting this requirement.]
- c. Minimum performance measures:
- [This is inconsistent and unachievable with Ecology's apparent decision to utilize a prescriptive permit development approach, an approach by its very nature constrains WSDOT's ability to involve the public in these processes.]
 - No later than eight months after the effective date of this permit, begin implementation of the public involvement program. [Section 8 of WSDOT's draft SWMP describes WSDOT's proposed public involvement program. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach for meeting this requirement.]
 - WSDOT must make their SWMP [Text deleted is vague and redundant with the remaining portion of this sentence] and all submittals required by this permit, including annual reports; SWMP; stormwater-related guidance manuals, procedures, and design tools; and stormwater-related research reports, [draft documents" vague] available to the public on its website. [Section 8.1.2 of WSDOT's SWMP describes the use of WSDOT's website to disseminate information to the public regarding WSDOT's stormwater and water quality program. WSDOT would like to get Ecology's feedback as to the adequacy of WSDOT's proposed approach for meeting this requirement.]
11. Fiscal Resources

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a. The SWMP shall educate internal staff, consultants and the general public on WSDOT's stormwater issues.

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Deleted: No later than six months after the effective date of this permit, adopt a process (separate from Ecology's advisory group for this permit) that creates opportunities for public participation in the decisionmaking processes involving the development, implementation and update of the SWMP. WSDOT must develop and implement a process for considering public comments on the components of their SWMP and monitoring requirements.

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- a. WSDOT shall seek adequate fiscal resources to maintain compliance with this NPDES permit. [Like Ecology, while WSDOT can pursue funding, it is the Legislature that establishes the agency's allocation.] This includes:

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- i. Implementing and maintaining all BMPs identified in the SWMP,
- ii. Maintaining an effective stormwater monitoring program,
- iii. Retaining adequate trained personnel to manage the stormwater program.

[Multiple redundancies regarding cost tracking appear in this permit (i.e., S5, A.5 and S8, B.2.). See related comments under S8, B.2.]

Deleted: b. WSDOT shall submit a Fiscal Analysis of the storm water program expenditures within twelve months of the effective date of this permit and shall include one for the 3rd year, 5th year of the permit period annual report. At a minimum, the fiscal analysis shall show the allocation of funds to the different programs for compliance with this permit; the funding of the program elements; and a comparison of actual past year expenditures with the current year's expenditures and next year's proposed expenditures

12. Program Assessment and Evaluation

- a. WSDOT shall have a compliance program to insure actions are implemented and facilities are constructed, operated and maintained in accordance with this NPDES permit and the SWMP. The compliance program shall include training for inspection personnel, documentation of field activities, a reporting system that can be used to track effectiveness of control measures, internal enforcement procedures for noncompliance, and responsibilities (in addition to organizational charts) of all affected functional WSDOT divisions and offices.

b. Minimum Performance Measures:

- i. WSDOT will incorporate the SWMP compliance requirements into all appropriate environmental compliance procedures and reporting tools.

Deleted: No later than one year after the effective date of this permit,

[Efforts have been underway at WSDOT to develop an environmental management system (EMS) for managing and improving our environmental and regulatory responsibilities and performance. The system being developed contains processes and practices to enable WSDOT to reduce its environmental impacts as well as increase its operating efficiency. An example of one of the components the EMS is our *Statewide Erosion Plan Implementation and Effectiveness Assessment program* described in Section 3.1.4 of the WSDOT's draft SWMP. WSDOT was looking to the permit development process to help further define the direction of this EMS tool for other aspects of our SWMP. As stated in Section 9.1 of the draft WSDOT SWMP, WSDOT proposes that this definition occur in consultation with Ecology as part of the permit development process. In that spirit, the draft SWMP contains a series of program evaluation measures for its various sections (see Sections 3.3, 4.3, 5.4, 6.6, 7.6, and 8.3) to help jumpstart the "program assessment and reporting" discussion. While, WSDOT would like to get Ecology's feedback as to its adequacy of these performance measures, we acknowledge that Section 9 (Program Assessment and Reporting) needs further refinement. However, the permit language in S5, B.12 is too vague to guide us in this pursuit.]

S6. TOTAL MAXIMUM DAILY LOAD ALLOCATIONS

A. WSDOT must be in compliance with applicable Total Maximum Daily Load (TMDL) requirements contained in Appendix 4 that identify the actions and activities for the discharge of pollutants from WSDOT owned and operated MS4s. Requirements contained in Appendix 4 are for TMDLs that have been approved by the EPA and for which a Detailed Implementation Plan has been adopted by Ecology on or before the issuance date of this permit.

Deleted: The following requirements apply if an applicable Total Maximum Daily Load (TMDL) is approved for stormwater discharges from MS4s owned or operated by WSDOT. Applicable TMDLs or applicable TMDL requirements are TMDLs, which have been approved by EPA on or before the issuance date of this permit.

B. For TMDLs not listed in Appendix 4 of this permit, compliance with this permit shall constitute compliance with all TMDLs requirements for discharges from WSDOT owned or operated MS4s. [The text below is an unnecessary redundancy with Special Condition S6.C.2]

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Deleted: WSDOT shall track actions required by this Permit that are relevant to applicable TMDLs within their jurisdiction. WSDOT shall monitor implementation of actions required to achieve compliance with the TMDL. WSDOT shall include the status of TMDL implementation as part of the annual reporting requirements submitted to Ecology. WSDOT shall also include documentation of all relevant actions implemented, that affect MS4 discharges to the waterbody segment that is the subject of the TMDL in the annual report

C. WSDOT shall comply with the following additional requirements.

1. If water quality monitoring is a specific requirement of a TMDL listed in Appendix 4, WSDOT must develop and implement a TMDL monitoring Quality Assurance Project Plan (QAPP). Each QAPP will be written in accordance with Ecology's guidelines at <http://www.ecy.wa.gov/biblio/0403030.html>, and must be developed by qualified staff or contractors that have experience in applying Ecology's or Environmental Protection Agency QAPP Guidelines. To ensure consistency, QAPPs may refer to the standard quality control guidelines in WSDOT's *Standard Monitoring Protocols*. In cases where monitoring involves work in areas for which QAPP guidelines have not yet been established, Ecology will work collaboratively with WSDOT to develop scientifically sound, yet feasible, methodologies for ensuring quality, defensible data. [← This language reflects similar language relating to QAPPs in Special Condition S7.] WSDOT shall submit all TMDL QAPPs no later than X [The amount of time allowed to submit QAPPs should reasonably consider the number of QAPPs that will be required] days after the effective date of this permit, unless otherwise specified in Appendix 4. Each TMDL monitoring effort will be started no later than 90 days after receiving QAPP review-approval from Ecology. In cases of rejection, Ecology shall provide remedial direction and collaboratively work with WSDOT to generate a QAPP that Ecology can approve. WSDOT shall submit each QAPP to Ecology in both paper and electronic form and it shall include:

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- a. A detailed discussion and description of the goal and objective(s), monitoring (experimental) design, and sampling and analytical methods.
- b. A list and maps of the selected TMDL monitoring sites.
- c. The frequency of data collection to occur at each station or site and the number and types of precipitation events targeted for sampling.

- d. The method and location(s) of precipitation measuring devices.
- e. The triggers for automated flow monitoring devices, if used.
- f. The parameters to be measured, as appropriate for and relevant to the TMDL.

2. For TMDLs listed in Appendix 4, WSDOT shall provide, as part of the annual report to Ecology, the status of required actions taken by WSDOT to implement the applicable TMDL requirements. The report must also identify the status of any applicable TMDL implementation schedule milestones.

- D. For TMDLs that are approved by EPA after this permit is issued, Ecology may establish additional TMDL related permit requirements through future permit modification, administrative orders, or when this permit is reissued. WSDOT is strongly encouraged to participate in development of TMDLs that are associated with discharges from its MS4 and to begin implementing actions independent of specific permit conditions. The text below is an unnecessary redundancy with the first sentence.

Deleted: g. The QAPP will be implemented beginning no later than 180 days after the effective date of this permit.

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Deleted: Ecology may modify this permit to incorporate requirements from TMDLs completed after the issuance of this permit if the Ecology determines implementation of actions, monitoring or reporting is necessary to demonstrate reasonable further progress toward achieving TMDL waste load allocations, and other targets are not occurring and must be implemented during the term of this permit.

S7. STORMWATER RESEARCH AND RELATED MONITORING [This renaming helps distinguish this Special Condition with the monitoring and tracking associate with S5 B.12. Program Assessment and Evaluation]

[WSDOT shares many of the concerns over the monitoring requirements below that have already been brought to Ecology's attention by the Phase I and Phase II permittees regarding their monitoring requirements. Ecology has also acknowledged that these sections of the permit still need significant work. As expressed by WSDOT and the other Phase I permittees in a whitepaper shared with Ecology on November 29, 2005, WSDOT feels that the following premises should also govern the development of WSDOT permit's monitoring requirements. Specifically,

1. A municipal stormwater monitoring program must be strategic, therefore it must:

a. Recognize the lessons learned from previous monitoring and research;

b. Focus on priority stormwater management needs to:

i. Reduce the pollution caused by municipal stormwater discharges,

ii. Address the stormwater pollution that causes the most significant impairments to receiving waters,

iii. Identify program improvements where the greatest potential treatment or restoration benefit exists, OR

iv. Increase cost-effectiveness;

c. Focus on questions that can be answered within acceptable levels of uncertainty;

d. Strive to use experimental protocols and methods of data collection, analysis, and reporting consistent with those used by other monitoring programs addressing similar problems; and

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e. Recognize the unique characteristics and needs of individual watersheds.

2. The specific actions and level of effort in the monitoring programs of different permittees may vary based on the different problems addressed.

3. Ecology must review and approve the permittees' monitoring program proposals.

4. Receiving water quality monitoring may be included in a permittee's stormwater monitoring proposal, provided such monitoring focuses on stormwater impacts and permit-related management actions.

5. Monitoring of Best Management Practices may be included in a permittee's stormwater monitoring proposal provided such monitoring focuses on stormwater impacts and permit-related management actions.

6. Ecology should establish a framework that integrates the information from individual monitoring programs and disseminates it to potential users.

7. Compliance with the permit must not be based on receiving water quality that may be identified by a permittee's monitoring program.

8. The permit must allow permittees to conduct individual or joint monitoring programs.

Section 7 of the WSDOT's draft SWMP describes WSDOT's approach to stormwater-related research and monitoring. Section 7.1 specifically outlines WSDOT's stormwater research strategy and Section 7.4 describes our research areas of interest and needs. Further refinement of WSDOT's stormwater research priorities by our Stormwater Technical Review Committee (STRC) has occurred since submitting the draft SWMP to Ecology for review and comment (Page 7-2 of the draft SWMP contains a description of STRC's role in WSDOT's stormwater research activities).

WSDOT shall develop and implement stormwater research in support of its SWMP. The research shall investigate the following questions:

1. How can existing stormwater treatment system designs be modified to improve their hydraulic infiltration capacities? Approaches that may be useful for enhancing infiltration capacities may include soil amendments, transitional underground storage areas, check-dams, french drains, and groundwater contactors.

2. What are the hydraulic performance and pollutant removal properties of:

- Compost blankets on highway fill slopes?
- WSDOT's *Roadside Manual*'s vegetation restoration methods?

3. What are the effects of slope length, angle, and impervious contributory area on natural dispersion applications in western Washington? Is the existing design guidance appropriate?

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The results of the research shall be used to support the SWMP and HRM revision process and lead to refinements of the stormwater management programs throughout Washington State and beyond. Quality Assurance Project Plans (QAPPs) for each research question, written in accordance with Ecology's guidelines at <http://www.ecy.wa.gov/biblio/0403030.html>, must be developed by qualified staff or contractors that have experience in applying Ecology's or Environmental Protection Agency QAPP Guidelines. To ensure consistency, QAPPs may refer to the standard quality control guidelines in WSDOT's Standard Monitoring Protocols. In cases where research involves work in areas for which QAPP guidelines have not yet been established, Ecology will work collaboratively with WSDOT to develop scientifically sound, yet feasible, methodologies for ensuring quality, defensible research.

As mentioned earlier, WSDOT's Statewide Erosion Plan Implementation and Effectiveness Assessment program (described in Section 3.1.4 of the WSDOT's draft SWMP) is WSDOT's tool to assess the effectiveness of the construction stormwater pollution prevention element of our SWMP.

[Use of the term "impacts" is too vague. Furthermore, Ecology, in their January 2004 report to the Legislature (Municipal Stormwater NPDES Permit Program), "recognizes that permits alone cannot prevent all stormwater impacts and preserve aquatic natural resources and their associated beneficial uses." The report goes on to multiple reasons for this. It is for those very reasons, that environmental outcome monitoring cannot be expected to answer the question "whether WSDOT's SWMP is adequate in protecting and restoring water quality and beneficial uses." However, the SWMP assessment and evaluation as called for in Special Condition S5 B. 12 provides a mechanism to assess implementation of the SWMP. While water quality monitoring can be employed as a useful tool in assessing some elements of the SWMP (e.g., WSDOT's Statewide Erosion Plan Implementation and Effectiveness Assessment program), it is not a very useful tool for many other elements (e.g., Education).

2. Research Coordination and Planning

In order to fulfill (either in part or in total) the research involved in investigating the questions in S7 above, WSDOT may choose to develop, implement and report results of their research in collaboration with other municipal (Phase I and II) stormwater NPDES permit entities. The fulfilled requirements shall be documented by WSDOT in a separate QAPP for each research question in S7 above submitted to Ecology for approval pursuant to S7.A.3.

WSDOT may also choose to independently develop and conduct the research in accordance with the following requirements:

- i. The QAPPs must be developed by qualified staff or contractors who have experience in applying Ecology's or EPA's QAPP guidelines. [WSDOT agrees]

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1. WSDOT shall develop and implement a comprehensive long-term water quality monitoring plan as described in this section. The monitoring program shall be designed to contribute to answering the following questions about the effectiveness of the municipal stormwater permitting and program efforts in protecting and restoring water quality and beneficial uses:¶

a. Is the implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff?

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b. Is WSDOT preventing impacts and seeing improvements to beneficial (... [3])

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that Ecology concurrence regarding the third-party involvement is desirable, however WSDOT consultant selection is governed by regulation and procedures (for details, see <http://www.wsdot.wa.gov/Consulting/-Regulations>). The type of the resources and information necessary for support will vary depending on the nature of investigation.

3. Research Investigation Development and Contents

WSDOT shall submit a QAPP of each research question in S7 above, no later than 12 months after the effective date of this permit, for review and approval by Ecology. In cases of rejection, Ecology shall provide specific remedial direction and collaboratively work with WSDOT to generate a QAPP that Ecology can approve. The monitoring program shall be submitted in both paper and electronic form and shall include all the required elements of the QAPP, including:

- a. A detailed discussion and description of the purpose, design, and methods of the research investigation.
- b. When applicable, a list and maps of all selected monitoring sites.
- c. When applicable, the frequency and type of sampling (data collection and analytical methods) or other monitoring, modeling, and analytical effort necessary in carrying out the research investigation.
- e. Full implementation of the each research project shall begin no later than 24 months after Ecology approval of each QAPP. The third party or parties selected to develop the QAPPs may continue to be utilized to collect and analyze the data and to write the subsequent reports required under this permit.

4. Research Reporting Requirements Ecology should considering integrating these requirement into S8 Reporting Requirements.

WSDOT shall report on the status of its stormwater research as part the reporting requirements in Special Condition S8. Each status report shall include a summary of the activities undertaken and during the preceding reporting period from July 1 through June 30. Each status report shall integrate data and findings from earlier years into the analysis of results, as appropriate. The status reports shall include:

- a. A summary of the purpose, design, and analytic methods of each research investigation.
- b. A summary of the activities undertaken during the reporting period, for each research investigation.

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 <#>Roads ¶
 <#>Average Annual Daily Traffic (AADT) counts or projections ¶
 <#>Maps and staff assistance as necessary to facilitate the location of outfalls and the evaluation of potential water quality monitoring sites. ¶
 <#>Other transportation facilities ¶
 <#>Lists of the locations of each of following types of facilities: ¶
 <#>Rest areas ¶
 <#>Park and ride areas ¶
 <#>Maintenance yards ¶ ... [5]

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c. Any data collected along with a QA/QC report for each research investigation ~~text is redundant with "d." below.~~

d. If feasible, an analysis (or preliminary assessment) of the results of each research investigation.

e. Recommended actions based on the findings.

f. If WSDOT conducts more stormwater-related research than required in S7, then a description of the research, along with the status and results, shall be included in the report.

Interest in BMP performance effectiveness extends beyond Washington State. The EPA-sponsored International BMP Database effort has set out to provide scientifically sound information to improve the design, selection and performance of BMPs. The effort is still in its infancy and its success in achieving this object depends of coordinating and building partnerships at regional, state, and national (and perhaps international) level. Given the magnitude and resources necessary for such an undertaking, it would be unrealistic for Washington State to think it can be successful in this area by continuing to go it alone. However, to be most effective in feeding into the EPA-sponsored effort, Washington State needs to develop the foundation to coordinate, collaborate, and leverage its resources within its own boundaries. Involving a neutral third-party (e.g., a University) to orchestrate this undertaking would enhance the creditability of such efforts. WSDOT also feels that successful progress in this area falls more along the lines of joint state/permittee-shared financing arrangement to support third-party BMP performance evaluation of existing Ecology-approved BMPs, rather than continuing to try to assimilate disparate (and sometimes duplicative) BMP performance data collection efforts from multiple permittees. WSDOT certainly has an interest in knowing the short- and long-term BMP performance of existing Ecology-approved BMPs and would consider contributing to a pooled-funding effort to evaluating existing Ecology-approved BMPs. However, WSDOT has an important role in undertaking research to explore and develop cost-effective treatment options applicable in constrained highway right-of-way settings. This is an area where WSDOT-lead innovations have begun to generate national attention and with supporting permit requirement can continue to make significant advancements.

[See comments under S7. A.1. above.]

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Deleted: B. Best Management Practice Effectiveness (BMP) Monitoring Program¶

WSDOT shall develop and implement a long-term BMP effectiveness monitoring program as described in this section. Structural runoff treatment BMPs and flow reduction strategies will be evaluated. The purpose of the monitoring program is to provide a feedback loop for adaptive management of WSDOT's stormwater management program and Ecology's municipal stormwater permitting program. The BMP effectiveness monitoring program shall be designed to contribute to answering the following questions about the short and long-term performance of BMPs to protect and restore water quality and beneficial uses:

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S8. REPORTING REQUIREMENTS

[Refer to Section 9.2.1 in the draft WSDOT Stormwater Management Program Plan (SWMP)]

A. WSDOT shall submit, no later than September of each year beginning in the year 2007, an annual report. The reporting period for each annual report shall be the previous fiscal year (i.e., July 1- June 30).

B. Per Appendix 6, the annual report shall include the following information:

1. Status of compliance with the permit deadlines, including the status of the evaluation measures described in the stormwater management program plan. If permit and SWMP milestones are not met, WSDOT shall report the reasons why they were not met and how they will be met in the future, including projected dates. [This last sentence is redundant with what is proposed above]

2. A summary assessment of the stormwater biennial work plan, for the reporting period, including a breakdown of anticipated activities in the stormwater management program slated for the next reporting period. The fiscal analyses would be included on a biennial basis to correspond to WSDOT's budgeting cycle. In the event that fiscal constraints materialized that would affect implementation of the SWMP, those aspects would be identified in the annual report. [WSDOT understands that financial reporting requirements arises from Clean Water Act. However, it is not possible with WSDOT's fiscal accounting system to track the expenditures for all the individual components of the stormwater management program. WSDOT feels that the permit should only require that summary budget information be included in the annual report for the fiscal reporting year as well as the proposed budget for the upcoming fiscal year.]

3. A summary describing significant milestones accomplished and lessons learned during the reporting period.

[WSDOT feels that ambient monitoring is the responsibility and mission of Ecology's Environmental Assessment Program.]

[It would be WSDOT's desire that Ecology review and certify in writing within 30 days of receipt that the report submitted by WSDOT satisfies the reporting requirements of this permit.]

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GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit.

G2. PROPER OPERATION AND MAINTENANCE

WSDOT shall at all times properly operate and maintain all facilities and systems of collection, treatment, and control (and related appurtenances) which are installed or used by WSDOT for pollution control to achieve compliance with the terms and conditions of this permit.

G3. NOTIFICATION OF SPILL

If WSDOT has knowledge of a spill into its municipal storm sewer which could constitute a threat to human health, welfare, or the environment, WSDOT shall notify the Ecology regional office and other appropriate spill response authorities immediately but in no case later than within 24 hours of obtaining that knowledge. Spills into WSDOT's MS3 which might cause bacterial contamination of shellfish, such as might result from broken sewer lines, shall be reported immediately to the Department of Ecology. WSDOT recommends Ecology makes the follow-up call to the Department of Health's Shellfish Program so as to simply the point-of-contact procedure. if WSDOT has knowledge of such a spill. The Department of Ecology's Regional Office 24-hr. number is 425 649-7000 for NWRO and 360 407-6300 for SWRO.

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Deleted: and the Department of Health, Shellfish Program

Deleted: and the Department of Health's Shellfish 24-hr. number is 360-236-3330

G4. BYPASS PROHIBITED

Flows tributary to a stormwater treatment BMP may be bypassed if the following conditions are met:

- A. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property damage; or (2) necessary to perform construction or maintenance-related activities essential to meet the requirements of the *Clean Water Act* (CWA); and
 - B. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated stormwater, or maintenance during normal dry periods.
- "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss.

Deleted: The intentional *bypass* of stormwater from all or any portion of a stormwater treatment BMP whenever the design capacity of the treatment BMP is not exceeded, is prohibited unless

G5. RIGHT OF ENTRY

WSDOT shall allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law at reasonable times:

- A. To enter upon WSDOT's premises where a discharge is located or where any records must be kept under the terms and conditions of this permit;
- B. To have access to, and copy at reasonable cost and at reasonable times, any records that must be kept under the terms of the permit;
- C. To inspect at reasonable times any monitoring equipment or method of monitoring required in the permit;
- D. To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities; and
- E. To sample at reasonable times any discharge of pollutants.

G6. DUTY TO MITIGATE

WSDOT shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

G7. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G8. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in the permit shall be construed as excusing WSDOT from compliance with any other applicable federal, state, or local statutes, ordinances, or regulations.

G9. MONITORING

A. Representative Sampling:

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored discharge, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

B. Records Retention:

WSDOT shall retain for five years, records of all monitoring information, including all calibration and maintenance records for field instrumentation, all original recordings from continuous monitoring instrumentation, all field notes from instantaneous-readout field instrumentation, copies of all reports required by this permit, and records of all

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data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by WSDOT or when requested by the *Director*. On request, monitoring data and analysis shall be provided to Ecology.

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C. Recording of Results:

For each measurement or sample taken, WSDOT shall record the following information: (1) the date, exact place and time of sampling; (2) the individual who performed the sampling or measurement; (3) field observations of unusual conditions that could affect results; (4) the dates the analyses were performed; (5) who performed the analyses; (6) the analytical techniques or methods used; and (7) the results of all analyses.

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D. Test Procedures:

All sampling and analytical methods used to meet the monitoring requirements specified in the approved stormwater management program shall conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136, unless otherwise specified in this permit or approved in writing by Ecology.

E. Flow Measurement:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed or operated Hand-held flow meters may be required to calibrate rating curves against staff gauges if/when calibrated flumes can't be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations or at a minimum frequency of at least one calibration per year. This is covered under G9. B. Records Retention above and should be the same length of time for flow and flow instrument calibration as any other measurement.

Deleted: Calibration records should be maintained for a minimum of three years.

F. Lab Accreditation:

All monitoring data, except for flow, temperature, conductivity, pH, total residual chlorine, and other exceptions approved by Ecology, shall be prepared by a laboratory registered or accredited under the provisions of, Accreditation of Environmental Laboratories, Chapter 173-50 WAC. Soils and hazardous waste data are exempted from this requirement pending accreditation of laboratories for analysis of these media by Ecology.

G. Additional Monitoring:

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G10. REMOVED SUBSTANCES

With the exception of decant from street waste vehicles, WSDOT shall not allow collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to be resuspended or reintroduced to the storm sewer system or to waters of the state. Decant from street waste vehicles resulting from cleaning stormwater facilities may be reintroduced only when other practical means are not available and only in accordance with the Street Waste Disposal Guidelines in Appendix 5.

G11. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G12. REVOCATION OF COVERAGE

The director may terminate coverage under this General Permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC. Cases where coverage may be terminated include, but are not limited to the following:

- A. Violation of any term or condition of this general permit;
 - B. Obtaining coverage under this general permit by misrepresentation or failure to disclose fully all relevant facts;
 - C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
 - D. A determination that the permitted activity endangers human health or the environment, or contributes significantly to water quality standards violations;
 - E. Failure or refusal of WSDOT to allow entry as required in RCW 90.48.090;
 - F. Nonpayment of permit fees assessed pursuant to RCW 90.48.465;
- Revocation of coverage under this general permit may be initiated by Ecology or requested by any interested person.

G13. TRANSFER OF COVERAGE

The director may require any discharger authorized by this general permit to apply for and obtain an individual permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC.

G14. GENERAL PERMIT MODIFICATION AND REVOCATION

This general permit may be modified, revoked and reissued, or terminated in accordance with the provisions of WAC 173-226-230. Grounds for modification, revocation and reissuance, or termination include, but are not limited to the following:

- A. A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this general permit;
- B. Effluent limitation guidelines or standards are promulgated pursuant to the CWA or chapter 90.48RCW, for the category of dischargers covered under this general permit;
- C. A water quality management plan containing requirements applicable to the category of dischargers covered under this general permit is approved; or
- D. Information is obtained which indicates that cumulative effects on the environment from dischargers covered under this general permit are unacceptable.

G15. REPORTING A CAUSE FOR MODIFICATION OR REVOCATION

If WSDOT knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under condition G12, G14, or 40 CFR 122.62 must report such plans, or such information, to Ecology so that a decision can be made on whether action to modify, or revoke and reissue this permit will be required. [All such reports shall be made in the annual report unless otherwise directed by Ecology.](#) Ecology may then require submission of a new or amended application. Submission of such application does not relieve WSDOT of the duty to comply with this permit until it is modified or reissued.

G16. APPEALS

- A. The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal within thirty days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B. The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with chapter 43.21b RCW within thirty days of the effective date of coverage of that discharger. Consideration of an appeal

of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.

C. The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

D. Modifications of this permit are appealable in accordance with chapter 43.21B RCW and chapter 173-226 WAC.

G17. PENALTIES

40 CFR 122.41(a)(2) and (3), 40 CFR 122.41(j)(5), and 40 CFR 122.41(k)(2) are hereby incorporated into this permit by reference.

G18. DUTY TO REAPPLY

WSDOT must apply for permit renewal at least 180 days prior to the specified expiration date of this permit. An expired permit continues in force and effect until a new permit is issued or until Ecology cancels the permit. WSDOT is covered under the continued permit only if it reapplies for coverage.

G19. CERTIFICATION AND SIGNATURE

All applications, reports, or information submitted to Ecology shall be signed and certified.

- A. All permit applications shall be signed by either a principal executive officer or ranking elected official.
- B. All reports required by this permit and other information requested by Ecology shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 1. The authorization is made in writing by a person described above and submitted to Ecology, and
 - 2. The authorization specifies either an individual or a position having responsibility for the overall development and implementation of the stormwater management program. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- C. Changes to authorization. If an authorization under General Condition G19.B.2 is no longer accurate because a different individual or position has responsibility for the overall development and implementation of the stormwater management program, a

new authorization satisfying the requirements of General Condition G19.B.2 must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this permit shall make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations."

G20. RECORDS RETENTION

WSDOT is required to keep all records related to this permit for at least five years.

G21. UPSET

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of WSDOT. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met. If WSDOT wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an upset occurred and that WSDOT can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; and 3) WSDOT submitted notice of the upset within five days.

In any enforcement proceeding, WSDOT has the burden of proof to establish the occurrence of an upset.

1 **DEFINITIONS AND ACRONYMS**

2 "Best Management Practices" ("BMPs") means the schedules of activities, prohibitions of
3 practices, maintenance procedures, and structural and/or managerial practices that when used
4 singly or in combination, prevent or reduce the release of pollutants and other adverse impacts to
5 waters of Washington State.

6 "Bypass" means the diversion of stormwater from any portion of a stormwater treatment facility.

7 "CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act
8 or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub.
9 L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

10 "Component" or "Program Component" means the elements of the stormwater management
11 program listed in Special Condition S7.

12 "Department" means the Washington State Department of Ecology.

13 "Director" means the Director of the Washington State Department of Ecology, or an authorized
14 representative.

15 "Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges from
16 Municipal Separate Storm Sewers of WSDOT.

17 "Ecology" means the Washington State Department of Ecology.

18 "40 CFR" means Title 40 of the Code of Federal Regulations, which is the codification of the
19 general and permanent rules published in the Federal Register by the executive departments and
20 agencies of the federal government.

21 "General Permit" means a permit which covers multiple dischargers of a point source category
22 within a designated geographical area, in lieu of individual permits being issued to each
23 discharger. Chapter 173-226-050 WAC includes "state or county highway systems" as an
24 appropriate geographical boundary for coverage under a general permit.

Deleted: "Existing Stormwater Discharge" means a discharge from a municipal separate storm sewer constructed or vested before the effective date of this permit, at the point where it discharges to receiving waters. An existing stormwater discharge serves an area of existing development and does not include new stormwater sources or new stormwater outfalls¶

25 "Heavy equipment maintenance or storage yard" means an uncovered area where any heavy
26 equipment, which is defined as excavators, dump trucks, backhoes, bulldozers, or mowers, is
27 washed or regularly maintained, or where at least five pieces of heavy equipment are stored on a
28 permanent basis.

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29 "Illicit connection" means any man-made conveyance that is connected to a municipal separate
30 storm sewer in a manner deemed unauthorized by WSDOT, such as without a permit or legal
31 justification, excluding roof drains, foundation or footing drains, and other similar type

connections [designed to convey drainage, surface water, or groundwater](#). Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets, or outlets that are connected directly to the municipal separate storm sewer system.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

"Integrated Pest Management" means the selection, integration, and implementation of pest control that consists of: Prevention of pest problems; monitoring and evaluation of pests, damage and results of treatment; acknowledgement of population levels of pests that can be tolerated based on legal, economic, health or aesthetic thresholds; use of natural control agents in an ecosystem; reliance to the maximum extent possible on nonhazardous biological, mechanical, and cultural treatment of pests; application of pesticides in a manner that minimizes damage to the ecosystem's natural controls and integrity; and use of pesticides only after other methods have been evaluated.

"Pest" means, but is not limited to, any insect, rodent, nematode, snail, slug, weed, and any form of plant or animal life or virus, except virus, bacteria, or other microorganisms on or in a living person or other animal or in or on processed food or beverages or pharmaceuticals, which is normally considered to be a pest, or which the director of the department of agriculture may declare to be a pest.

"Large Municipal Separate Storm Sewer System" means all Municipal Separate Storm Sewers located in an incorporated place with a population of 250,000 or more, a County with unincorporated urbanized areas with a population of 250,000 or more according to the 1990 decennial census by the Bureau of Census.

"Low Impact Development" (LID) means a stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrologic functions.

"Major Municipal Separate Storm Sewer Outfall" means a municipal separate storm sewer outfall from a single pipe with an inside diameter of 36 inches or more, or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 12 acres or more).

1 "Material Storage Facilities" means an uncovered area used on a permanent basis for the storage
 2 of uncontained bulk materials (liquid, solid, granular, etc.) in piles, barrels, tanks, bins, crates, or
 3 other means.

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4 "Medium Municipal Separate Storm Sewer System" means all Municipal Separate Storm Sewers
 5 located in an incorporated place with a population of more than 100,000 but less than 250,000, or
 6 a county with unincorporated urbanized areas of more than 100,000 but less than 250,000
 7 according to the 1990 decennial census by the Bureau of Census.

8 "Municipal Separate Storm Sewer" means a conveyance, or system of conveyances (including
 9 drainage systems associated roads and municipal streets, catch basins, curbs, gutters, ditches,
 10 manmade channels, or storm drains): (i) owned or operated by a state, city, town, borough,
 11 county, parish, district, association, or other public body (created by or pursuant to State Law)
 12 having jurisdiction over disposal of wastes, storm water, or other wastes, including special
 13 districts under State Law such as a sewer district, flood control district or drainage district, or
 14 similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and
 15 approved management agency under section 208 of the CWA that discharges to waters of the
 16 United States; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a
 17 combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as
 18 defined at 40 CFR 122.2.

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19 "National Pollutant Discharge Elimination System" (NPDES) means the national program for
 20 issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and
 21 imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the
 22 Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point
 23 sources. These permits are referred to as NPDES permits and, in Washington State, are
 24 administered by the Washington Department of Ecology.

Deleted: "New Stormwater Discharge"
includes new stormwater sources and new stormwater outfalls.

Deleted: "New Stormwater Outfall"
means a municipal separate storm sewer,
at the point where it discharges to
receiving waters, that is vested after the
effective date of this permit, and is
constructed at a location where a
municipal separate stormwater discharge
did not exist at the effective date of the
permit. A new stormwater outfall may
consist of new stormwater sources,
existing stormwater sources or a
combination of new and existing
stormwater sources. A new stormwater
outfall does not include a replacement of
an existing outfall, provided that the
replacement does not increase the
volume, flow rate, or pollutant load of the
discharge, and discharges to the same
water body at approximately the same
location

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 28 "Notice of Intent" (NOI) means the application for, or a request for coverage under this General
 29 Permit pursuant to WAC 173-226-200.

30 "Notice of Intent for Construction Activity," and "Notice of Intent for Industrial Activity" mean
 31 the application forms for coverage under the Construction Stormwater General Permit and the
 32 Industrial Stormwater General Permit.

Deleted: "New Stormwater Source"
means any New Development and
Redevelopment, as defined in Appendix
1, that is vested after the effective date of
this permit, increases the volume, flow
rate, or pollutant load of the stormwater
runoff from the site, and discharges to a
municipal separate storm sewer owned or
operated by WSDOT.

33 "Outfall" means point source as defined by 40 CFR 122.2 at the point where a municipal
 34 separate storm sewer discharges to waters of the State and does not include open conveyances

1 connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances which
2 connect segments of the same stream or other waters of the State and are used to convey waters
3 of the State.

4 “Qualified Personnel” means someone who has had professional training appropriate to the
5 aspects of stormwater management they are assigned.

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6 “Runoff” see Stormwater.

7 “Shared Waterbodies” means waterbodies, including downstream segments, lakes and estuaries,
8 that receive discharges from more than one municipal stormwater permit entity.

9
10 “Stormwater,” for the purpose of this permit, means rainfall or snow melt runoff.

11 “Stormwater Associated with Industrial Activity” means the discharge from any conveyance
12 which is used for collecting and conveying stormwater, which is directly related to
13 manufacturing, processing or raw materials storage areas at an industrial plant, and is required to
14 have an NPDES permit in accordance with 40 CFR 122.26.

15 “Stormwater Management Manual for Eastern Washington” means the technical manual
16 (Publication No. 04-10-076) published by the Department of Ecology in September 2004.

17 “Stormwater Management Manual for Western Washington” means the 5-volume technical
18 manual (Publication Nos. 05-10-029 through 05-10-033) published by Ecology in February
19 2005.

20 “Waters of the State” includes those waters as defined as “waters of the United States” in 40
21 CFR Subpart 122.2 within the geographic boundaries of Washington State and “waters of the
22 state” as defined in Chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland
23 waters, underground waters, salt waters and all other surface waters and water courses within the
24 jurisdiction of the State of Washington.

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25 “Water Quality Standards” means Surface Water Quality Standards, Chapter 173-201A WAC,
26 Ground Water Quality Standards, Chapter 173-200 WAC, and Sediment Management Standards,
27 Chapter 173-204 WAC.

28 “WSDOT” means the Washington State Department of Transportation.

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Deleted: “ Site-specific Information”
includes but is not limited to: information
in water quality management plans such
as watershed or stormwater basin plans,
TMDLs, groundwater management plans,
and lake management plans; information
about hydrology, soils, or the sensitivity
of the receiving waters that is obtained
through professional field observations or
monitoring; and information about likely
pollutant sources.

APPENDIX 1 – Minimum Technical Requirements for New Development and Redevelopment for Western Washington; AND

APPENDIX 2 – Minimum Technical Requirements for New Development and Redevelopment for Eastern Washington

WSDOT feels that *Appendices 1& 2* are redundant with the permit's Special Condition S5. B.5.a. requiring WSDOT to implement its HRM, which shall provide an equal or greater level of protection to the Ecology stormwater management manuals. As our agencies are aware, professional differences of opinion in several areas remain. WSDOT wishes to collaboratively engage Ecology and other effected stakeholder in seeking resolution to these differences. The significant remaining issues include:

1) The western Washington "forested presumption" flow control standard.

Unless the immediate pre-project land cover conditions are forested, WSDOT maintains that designing flow controls facilities to the western Washington *forested presumption standard* goes beyond mitigating for the project flow control-related impact. See previous comments under Special Condition S5 B.7.a.iii.

2) Average daily traffic (ADT) threshold for enhanced metals treatment in eastern and western Washington.

WSDOT feels that the rationale provided by Ecology's discussion paper for the proposed ADT threshold for *enhanced treatment* is not supported by the data and falls short of making a compelling case to deviate from the ADT threshold that Ecology conditionally accepted in the March 2004 HRM.

WSDOT concurs that with Ecology's assessment in their March 2005 discussion paper *Establishment of an Annual Average Daily Traffic Threshold for Applying Enhanced Treatment (Dissolved Metals Removal)* that no reliable linear ADT/pollutant loading relationship exists. A similar conclusion was expressed in an April 8, 2003 memo from Steve King (City of Wenatchee) and Karen Dinicola (Ecology) to the Ecology *Eastern Washington Manual Subcommittee*, which concluded:

"Review of the available literature indicated that there is not a definitive ADT threshold as was hoped there would be during our discussion in the meeting on February 13th. Literature did demonstrate that pollutant concentrations in roadway runoff are highly variable and dependent on the surrounding environment, not just ADT."

WSDOT feels that the lack of a direct liner relationship is likely due to the influence of the many other factors effecting highway pollutant concentrations such as the nature of the rainfall event (i.e., intensity, length of the antecedent dry period, etc.) and surround land use (via offsite contributions from runoff and atmospheric deposition). The Kayhanian et al. study, referenced in Ecology's discussion paper, also suggests *"[p]ossible reasons for the lack of a simple linear*

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correlation include complicating factors such as wind, vehicular turbulence, volatilization, and oxidation (Irish et al. 1995, Wistrom and Matsumoto, 1999)."

In absence of a direct ADT correlation, WSDOT feels that the search for a better enhance treatment trigger is warranted, one that factors in the other influences revealed in the existing literature regarding this issue. Furthermore, WSDOT feels that the bioavailability of dissolved metal is not well understood. Having a better understanding of the dissolved metal concentrations that produce toxic effects in the aquatic environment would enhance our ability to target enhanced treatment where it is needed, thereby avoiding costly measure in water bodies that have sufficient background dilution capacity to accommodate dissolved metals additions from build-out conditions.

WSDOT recognizes the challenges involved in such an undertaking and believes that this topic involves policy and technical issues that justify the convening of a technical advisory group to explore this matter in greater detail. Such a committee would certainly benefit from including participants with a biologist/toxicology background so that the Ecology can make a more informed decision as to what guidance would be appropriate (and make a meaningful difference). As Ecology is aware, to help inform such a discussion, WSDOT has contracted with researchers at Washington State University to assess the existing enhance treatment trigger.

In the interim, since data is insufficient to support a defensible ADT threshold, the previously set threshold of 30,000 ADT in the WSDOT's HRM should be applied at this time. WSDOT considers such a threshold conservative given that the Kayhanian et al. study found that it was only when urban medium and higher range ADT highways were examined that a more consistent correlation began to emerge. Urban medium highways were defined as having an ADT greater than 60,000.

Furthermore, the effectiveness of basic treatment BMPs should be accounted for in defining enhanced treatment requirements. The data used in the Kayhanian et al. study was collected at the edge of the pavement (i.e., the runoff was untreated). The Caltran's BMP Retrofit Pilot Program Final Report (ID CTS-RT-01-005) shows that basic treatment BMPs like swales, filter strips, and ponds reduced dissolved copper by 50-70% and dissolved zinc by 70% (Note: the study also shows that enhanced treatment BMPs, like the Austin sand filter, were less effective than basic treatment BMPs at removing dissolved copper). Similar performance findings have been revealed in the EPA-sponsored International BMP Database effort.

3) ADT threshold for oil control in eastern Washington.

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WSDOT is interested in learning Ecology's basis for establishing the ADT threshold for oil control. While oil and grease are more commonly observed in vehicle parking areas, WSDOT sampling has show that measurable quantities of oil and grease are rare, even on the most heavily used highways.

4) Vagueness surrounding the application of the Ecology's eastern Washington Manual's Core Element #8 – Local Requirements.

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As explained in the HRM's Section 1-1.5, WSDOT's understands per state law that it is subject to local stormwater requirements that may be triggered through critical area ordinances (under the Growth Management Act), shoreline master programs (under the Shorelines Management Act), TMDLs, adopted watershed plans, and in instances where we discharge into a jurisdiction's

municipal separate stormwater system. However, as written, Core Element #8's requirement that "additional local requirements determined to be necessary to protect water quality must also be applied to all new development and redevelopment projects" is too vague. Specifically, "determined to be necessary" needs qualification to reflect the statutory limits of such local requirements. Furthermore, to avoid the possibility of generating confusion over which permit requirements govern in terms of WSDOT's facilities, WSDOT feels that it is imperative to craft permit language in such a way that is clear that the Phase I & II NPDES MS4 general permits do not govern within WSDOT right-of-way and maintenance yards (see comments under Special Condition S1.B.)

APPENDIX 3 – Washington State Department Of Transportation Stormwater Management Program

[WSDOT would like to get Ecology feedback as to the adequacy of the draft SWMP in meeting the conditions of this permit, including details as to the specific aspects of the draft SWMP that Ecology considers deficient.]

APPENDIX 4 – STATEWIDE TMDL REQUIREMENTS FOR WSDOT

[The following statement appears under "Action Required" in the Snohomish River Tributaries and North Creek TMDL requirements:

"Where potential sources of bacterial pollution exist, operational source control BMPs shall be required for all pollutant generating sources."

This statement is an overly broad and vague making it difficult to assess what actions would be necessary to comply with these TMDL-related permit requirements. For example, wildlife represents an ubiquitous source of fecal coliform bacterial pollutants. Does this suggest that operational source controls need to be applied everywhere? If so, what would the nature of those BMPs entail since neither WSDOT's HRM or Ecology's stormwater management manuals specify BMPs for fecal coliform treatment of highway stormwater runoff?

Given that highways themselves do not produce bacterial pollution, in the absence of any empirical evidence demonstrating any specific WSDOT-facility fecal coliform-generating sources (e.g., a rest area's failing septic system or pet exercise area), WSDOT feels that a general requirement for source control BMPs is overly broad.]

New Stormwater Discharges. All new stormwater discharges must comply with Washington surface water, ground water and sediment management standards. New stormwater discharges by WSDOT shall not cause or contribute to a violation of applicable standards. New stormwater discharges include new stormwater sources and new stormwater outfalls, including all sources contributing to the new stormwater outfall. Compliance with water quality standards shall be determined as follows:

1. If the new stormwater discharge is controlled in accordance with the technical standards in Appendices 1 and 2 and in compliance with the terms of this permit, then the discharge is in compliance unless *site-specific information* as in 2, below, indicates otherwise. From the effective date of this permit until the date WSDOT adopts and applies the technical standards in this permit, (including, at a minimum, Appendices 1 and 2, the *Best Management Practice (BMP)* selection and site planning process, types of BMPs and design criteria for BMPs required under S5.B.5 of this permit) WSDOT must apply the following evaluation for transportation-related projects that will result in new stormwater discharges as follows:

a. That new stormwater discharges are not allowed to cause or contribute to a violation of applicable surface water, ground water and sediment management standards, including the State's narrative criteria for water quality; and

WSDOT may apply the technical standards referenced in paragraph S4.B.1, above, as a means of achieving compliance; and

c. If WSDOT chooses not to apply the applicable technical standards referenced in paragraph S4.B.1, above, then WSDOT must demonstrate that the new stormwater discharge does not cause or contribute to a violation of applicable surface water, ground water and sediment management standards. WSDOT must document how stormwater BMPs were selected, the pollutant removal expected from the selected BMPs, the technical basis which support the performance claims for the selected BMPs, and an assessment of how the selected BMPs will comply

with applicable state water quality standards and satisfy the state requirement under chapter 90.48 RCW to apply all known, available, and reasonable methods of prevention, control and treatment (AKART).

2. The applicability of Appendix 1 for western Washington includes the area bounded on the south by the Columbia River, on the west by the Pacific Ocean, on the north by the Canadian border, and on the east by the Cascade Mountains crest. The requirements in Appendix 2 for eastern Washington apply to the remainder of the state.

3. If, prior to the construction advertising date (“ad date”) of a new stormwater discharge, site-specific information indicates that the technical standards in this permit, including those listed in S4 C. 1., are not sufficient to protect beneficial uses of waters of the state from impacts which cause or contribute to loss or impairment, then additional controls necessary to protect beneficial uses must be applied. The additional controls determined necessary to protect beneficial uses must be in place prior to the discharge from the new stormwater source or outfall.

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Ecology may modify or revoke and reissue this general permit, in accordance with General Condition G14, if Ecology becomes aware of additional control measures, management practices or other actions beyond what this permit requires that are necessary to reduce the discharge of pollutants to the MEP.

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b. Is WSDOT preventing impacts and seeing improvements to beneficial uses by implementing a comprehensive stormwater management program?

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If WSDOT chooses a third party to develop the monitoring plan, the third party must be approved by the Department of Ecology.

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Roads

Average Annual Daily Traffic (AADT) counts or projections

Maps and staff assistance as necessary to facilitate the location of outfalls and the evaluation of potential water quality monitoring sites.

Other transportation facilities

Lists of the locations of each of following types of facilities:

Rest areas

Park and ride areas

Maintenance yards

Storage sites for road salt/sand

Ferry loading areas

Trip end counts or projections

Maps and staff assistance as necessary to facilitate the location of outfalls and the evaluation of potential water quality monitoring sites.

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Water Quality Monitoring Program

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proposed monitoring program and implementation program

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water quality monitoring program

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receiving water and outfall sampling

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The program shall include a list of specific water quality monitoring stations in outfalls representing discharges from each of the following:

- i. Low volume roads, sub-categories of <15,000 AADT and 15,000-30,000 AADT,
- ii. Parking lots at rest areas, park and ride areas, and ferry loading areas,
- iii. Maintenance yards, and
- iv. Storage sites for road salt/sand.

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Final site selection shall provide for representation of each of the above categories and also result in appropriate distribution of the sites among urban, suburban, and rural settings, and among a variety of climatic and hydrogeologic settings across the state.

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to occur at each station or site, including but not limited to:

- i. **Flow-weighted composite storm sampling, and base flow sampling, in outfalls for the following constituents/parameters, as appropriate, for the monitoring objective:**

- (1) **Flow, hydrograph data including antecedent dry period, rainfall and runoff, discussion of representativeness of storm samples and storm types,**
- (2) **TSS and turbidity,**
- (3) **Conductivity if tidally influenced,**
- (4) **Chloride,**
- (5) **Metals (including, at a minimum, total and dissolved copper, zinc, cadmium, and lead; and mercury sampling, as appropriate, in some high density commercial or industrial urban settings) and hardness,**
- (6) **Base/Neutral/Acids (BNAs),**
- (7) **Pesticides (commercially available and/or known to be applied roadside),**
- (8) **Nutrients (including total nitrogen, phosphorus, nitrate/nitrite and orthophosphate),**
- (9) **Biochemical oxygen demand (BOD), and**
- (10) **Toxicity testing of a “seasonal first-flush” storm event (as defined by Ecology).**

ii. Grab samples in outfalls for the following constituents/parameters as appropriate for the monitoring objective:

- (1) **Total Petroleum Hydrocarbons (TPH) using NWTPH-Gx and NWTPH-Dx., and**
- (2) **E. coli and Enterococci bacteria.**

iii. For in-line sediment traps, percent solids, pH, metals, and BNAs as appropriate for the contributing area land use.

- d. **The number of each type of event (e.g. baseflow; “seasonal first-flush” and/or other dry season rainfall; wet**

season rainfall) to be sampled at each location for each of the types of sampling identified in part S7 A (3) (c).

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water quality monitoring program

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the effective date of this permit

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Water Quality Monitoring Program

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annual stormwater monitoring

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by December 31 each year starting in 2008

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be submitted in both paper and electronic form and shall

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- a. Is implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff?
- b. Is WSDOT preventing impacts and seeing improvements to beneficial uses by implementing a comprehensive stormwater management program?

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1. BMP Effectiveness Monitoring Program Coordination and Planning

In order to fulfill (either in part or in total) the BMP effectiveness monitoring program requirements listed below, WSDOT may choose to develop, implement and report results of their the program in collaboration with other municipal (Phase I and II) stormwater NPDES permit entitites. The fulfilled requirements shall be documented by WSDOT in a separate monitoring program plan submitted to Ecology for approval pursuant to S7.B.2.

WSDOT may also choose to independently develop and conduct the program in accordance with the following requirements:

WSDOT's BMP effectiveness monitoring program shall be designed to evaluate at least one type of BMP for each category of treatment (i.e. basic, metals and oil control) at no less than two sites per BMP. Additionally, at least three flow

reduction strategies shall be evaluated. The monitoring program must include QAPPs for each BMP and flow reduction strategy being evaluated. The program must be developed by qualified staff or contractors who have experience in applying Ecology's or EPA's QAPP guidelines. If WSDOT chooses a third party to develop the monitoring plan, the third party must be approved by the Department of Ecology. WSDOT shall support the monitoring planning efforts by providing the following resources and information:

a. WSDOT shall identify potential sites where the following types of BMPs are in use or planned for installation (the BMPs shall be designed using criteria similar to the 2005 Stormwater Management Manual for Western Washington or 2004 Stormwater Management Manual for Eastern Washington). QAPPs for short detention time BMPs should follow the TAPE protocols. QAPPs for long detention time BMPs will need to develop sampling protocols. BMP treatment types:

(1) **Basic Treatment**

Biofiltration swale

Filter strip

Basic wetpond

Treatment wetland

Sand filter

(2) **Metals/Phosphorus Treatment**

Amended sand filter

Two facility treatment train

Compost amended filter strips

Bioretention

Large wetpond

(3) **Oil Control**

Linear sand filter

Catch basin insert

- b. WSDOT shall provide a prioritized list of the types of structural treatment BMPs to monitor.

- c. WSDOT shall identify and describe a flow reduction strategy that is in use or planned for installation in their jurisdiction, and is suitable for monitoring.
- d. WSDOT shall provide staff assistance as necessary to facilitate the evaluation and selection of potential sites.

2. BMP Effectiveness Monitoring Plan Development and Contents

WSDOT shall submit a monitoring program plan, no later than 12 months after the effective date of this permit, for review and approval by Ecology. The monitoring program shall be submitted in both paper and electronic form and shall include:

- a. **A detailed discussion and description of the purpose, design, and methods of the BMP effectiveness monitoring program, including Quality Assurance Project Plans (QAPPs) for each BMP being monitored.**
- b. **A detailed discussion and description of the purpose, design, and methods of the flow reduction strategy monitoring program, and QAPPs for each flow reduction strategy being monitored.**
- c. **A list and maps of all proposed and selected monitoring sites, including the date of installation/construction.**
- d. **WSDOT's prioritized lists of structural treatment BMPs to monitor.**
- e. **Records of inspection and maintenance on each of the BMPs selected.**
- f. **The methods, protocols, analytical laboratory methods to be used.**
- g. **The frequency of data collection to occur at each station or site and the number and types of precipitation events to be targeted for sampling.**
- h. **The parameters to be measured in the inflow to and outflow from each BMP, or flow reduction strategy, as appropriate for the contributing area land use and performance expectations of the selected BMP:**
 - i. *Flow (rate, duration and volume)*
 - ii. *Hydrograph data including antecedent dry period, rainfall and runoff, discussion of representativeness of storm samples and storm types.*

- iii. TSS,*
- iv. pH, hardness, and temperature,*
- v. Metals (including, at a minimum, total and dissolved copper, zinc, arsenic, cadmium, chromium, and lead),*
- vi. Total Petroleum Hydrocarbons (NWTPH-Gx and NWTPH-Dx),*
- vii. BNAs,*
- viii. Pesticides (commercially available and/or known to be applied roadside),*
- ix. Nutrients (including total nitrogen, total phosphorus, nitrate/nitrite and orthophosphate),*
- x. Biochemical oxygen demand (BOD),*
- xi. E. coli and Enterocci bacteria, and/or*
- xii. Toxicity*

i. Full implementation of the stormwater and receiving water monitoring program shall begin no later than 24 months after the effective date of this permit. The third party or parties selected to develop the monitoring plan may continue to be utilized to collect and analyze the data and to write the subsequent reports required under this permit.

3. BMP Effectiveness Monitoring Reporting Requirements

WSDOT shall submit an annual stormwater monitoring report by December 31 each year beginning in 2008. Each report shall include all monitoring data collected for the preceding period from October 1 through September 30. Each report shall also integrate data from earlier years into the analysis of results, as appropriate. The reports shall be submitted in both paper and electronic form and shall include:

- a. A summary of the purpose, design, and methods of the monitoring program,**
- b. The status of implementing the monitoring program,**
- c. The status of implementing the QAPP for each component of the monitoring program, with an explanation and discussion of the results of each component,**
- d. An analysis of the results of each component of the monitoring program, including any identified BMP performance problems, and**
 - e. Recommended future actions based on the findings.**